

INSTITUTE OF GEOLOGICAL SCIENCES  
MINERAL RESOURCES DIVISION

STATISTICAL  
SUMMARY OF THE  
MINERAL INDUSTRY

WORLD PRODUCTION,  
EXPORTS AND IMPORTS

1966-1970



LONDON  
HER MAJESTY'S STATIONERY OFFICE  
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NATURAL ENVIRONMENT RESEARCH COUNCIL  
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## PREFACE

This publication is prepared by the Mineral Statistics and Economics Unit of the Mineral Resources Division of the Institute of Geological Sciences. The Institute was formed in June 1965 by the incorporation of Overseas Geological Surveys with the Geological Survey of Great Britain and the Museum of Practical Geology and is a constituent body of the Natural Environment Research Council.

The statistical tables have been compiled from a large number of official and commercial sources. The information obtained from Mines Reports, Trade Returns and other published works, and the assistance given by government and private correspondents throughout the world, are gratefully acknowledged.

I am pleased to announce that, in line with the development of metrication in industry and elsewhere, the latest statistical information in this edition is presented to the reader on a fully metric basis as well as in the units employed hitherto.

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All communications should be sent to the Mineral Statistics and Economics Unit at the above address.

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## EXPLANATORY NOTES

**Coverage.** Although this Summary attempts to provide a comprehensive world coverage of mineral production and trade, it has not been possible to obtain complete information for every country. In the production tables, estimates for certain countries have been included where necessary in order to arrive at world totals. In the trade tables, however, such estimates have generally not been attempted and the coverage is limited to that available from the official trade returns. The absence of import or export figures for a particular country from a table does not necessarily signify no trade in the commodity concerned, but may mean only that the item has not been separately specified in that country's trade returns.

**Arrangement of Countries.** In each table, Commonwealth countries are grouped separately from other countries. Within their respective groups the countries are then listed alphabetically by continents in the following order: Europe, Africa, North and Central America, South America, Asia and Australasia.

For Swaziland and Botswana, production statistics are recorded separately but the foreign trade is dealt with for Customs purposes as part of that of South Africa. The trade figures for South-West Africa are also generally included with those for South Africa.

The trade statistics<sup>r</sup> for Spain and Spanish Dependencies exclude the trade between these territories.

**Production of Ores and Metals.** In the sections on cobalt, copper, lead, tin and zinc tables are given showing both the production of ore, in terms of its metal content, and the actual production of metal. The metal content of the ore produced is either as calculated from average assay values or is the amount of metal estimated to be recoverable. The ore is, of course, not necessarily smelted in the country of origin and the metal production in a particular country may be derived from both domestic and imported ores. Secondary metal is excluded, as far as possible, from the metal production tables but where important is given in footnotes to the producing countries.

**Imports and Exports.** Except for gold and silver, the figures shown in the tables are intended to represent exports of domestic produce and imports retained, i.e. total imports less re-exports. There are, however, certain cases where this cannot be followed; in particular, with re-exports no longer separately recorded in the official trade statistics after 1969, *the figures shown for the United Kingdom in 1970 refer to total exports (including re-exports) and to total imports respectively.*

**Units.** The units of weight employed in the tables are: the metric carat, the troy ounce the lb. (avdp.) and the long ton. Their equivalents in certain other units are as follows:

1 metric carat	= 0.2 gramme	1 lb. (avdp.)	= 7,000 grains
	= 3.08648 grains		= 14.5833 troy ounces
			= 0.453592 kilogrammes
1 troy ounce	= 480 grains	1 long ton	= 2,240 lb. (avdp.)
	= 31.1035 grammes		= 1.12 short tons
	= 155.5175 metric carats		= 1.016047 tonnes

*In addition to the units referred to above the data for 1970 are also shown throughout the tables in metric units.*

The factors used for converting volumes of liquids into weights are given in footnotes to the tables relating to Coal By-Products (p. 86) and Petroleum and Allied Products (pp. 237, 251).

**Symbols.** The following symbols are used in this Summary:

— = Nil, or negligible.    *r* = Revised figure.    *n.a.* = Information not available.

## ABRASIVES\*

### PRODUCTION OF NATURAL ABRASIVES

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Pumice (b) .. ..	780	120	—	—	—	—
Corundum .. ..	—	25	42	117	59	60
Rhodesia—						
Corundum .. ..	(c) 3,500	(c) 4,500	n.a.	n.a.	n.a.	n.a.
Tanzania—						
Corundum (a) .. ..	100	38	—	—	—	—
Canada—						
Grindstones .. ..	4	9	—	—	—	—
Dominica—						
Pumice (b) .. ..	4,059	39,241	51,675	54,971	54,000	54,000
India—						
Corundum .. ..	575	531	321	445	405	412
Garnet .. ..	215	583	1,952	1,611	970	986
Australia—						
Garnet (e) .. ..	239	175	100	82	89	91
New Zealand—						
Pumice (b) .. ..	18,039	16,144	16,315	19,001	18,904	19,207
<b>OTHER COUNTRIES</b>						
Belgium—						
Grindstones .. ..	44	37	36	29	25	25
France—						
Pumice (b) .. ..	793	616	583	580	625	635
Millstones .. ..	1,512	1,476	1,263	1,242	n.a.	n.a.
Sharpening stones .. ..	12	8	7	n.a.	n.a.	n.a.
Germany (Federal)—						
Pumice (d) .. ..	5,305,000	4,071,000	3,504,000	3,939,000	4,147,000	4,214,000
Greece—						
Emery .. ..	7,480	7,480	7,500	6,990	6,889	7,000
Pumice .. ..	323,115	224,000	279,000	388,000	398,000	404,000
Pumicite .. ..	(c) 345,000	(c) 491,000	n.a.	n.a.	n.a.	n.a.
Iceland—						
Pumice (b) .. ..	(c) 10,000	(c) 10,000	(c) 10,000	n.a.	n.a.	n.a.
Italy—						
Pumice .. ..	760,664	715,900	(c) 627,000	n.a.	(c) 750,000	(c) 762,000
Spain—						
Pumice .. ..	96,213	107,548	166,503	228,021	(c) 223,000	(c) 227,000
Sweden—						
Grindstones and whetstones .. ..	548	217	n.a.	n.a.	n.a.	n.a.
Malagasy Republic—						
Garnet .. ..	(a) 6	(a) 28	(a) 28	(a) 2	(a) 32	(a) 33
South Africa—						
Corundum .. ..	357	313	252	225	243	247

\*See also Aluminium, Diamonds and Diatomaceous earth.

(a) Exports.

(b) May include pumice for use other than as an abrasive.

(c) United States Bureau of Mines' estimate.

(d) Marketable. Including pumice and pumicite for constructional purposes.

(e) Sales.

PRODUCTION OF NATURAL ABRASIVES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States (c)—</b>						
Emery .. .. .	9,912	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Garnet .. .. .	19,600	18,298	19,764	18,266	16,819	17,089
Pumice and pumicite						
(a) (b) .. .. .	2,873,000	3,076,786	3,151,786	3,222,321	2,798,214	2,843,097
Tripoli .. .. .	59,074	63,379	76,370	75,600	60,808	61,783
<b>Argentina—</b>						
Garnet .. .. .	84	93	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Turkey—</b>						
Emery .. .. .	29,005	24,088	30,864	43,457	114,200	116,020

Abrasives are also produced in other countries, statistics for which are not available.

The United States Bureau of Mines reports the following artificial abrasives sold, shipped or used from plants in the United States and Canada (long tons):

	1966	1967	1968	1969	1970	Tonnes 1970
Silicon carbide ..	142,000	127,000	142,000	144,000	149,000	151,000
Aluminium oxide ..	218,000	185,000	171,000	193,000	174,000	176,000
Metallic abrasives† ..	183,000	182,000	193,000	205,000	178,000	181,000

†Shipments for U.S. plants only.

The figures given above include material used for refractories and other non-abrasive purposes.

(a) Including pumice for use other than as an abrasive.

(b) Including volcanic cinders used principally for ballast which amounted to 2,383,000 tons in 1966, 2,383,930 tons in 1967, 2,722,321 tons in 1968, 2,688,393 in 1969, and 2,371,428 tons (2,409,466 tonnes) in 1970.

(c) Sold or used by producers.

EXPORTS OF ABRASIVES\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Abrasives, natural ..	3,617	4,701	8,811	5,386	8,458	8,594
Corundum artificial ..	5,345	4,953	3,226	3,355	2,153	2,188
Grinding wheels, etc. ..	7,005	5,684	5,776	7,529	6,766	6,875
Tanzania—						
Corundum .. ..	100	38	—	—	—	—
Canada—						
Natural abrasives, including diatomaceous earth .. ..	27	55	92	94	33	34
Artificial abrasives, crude .. ..	264,034	227,097	233,519	257,551	244,778	248,706
Artificial abrasive wheels, etc. .. ..	} (£53,068)	} (£42,196)	} (£112,156)	} (£127,000)	} (£340,000)	} (£340,000)
Grindstones .. ..						
Dominica						
Pumice (a) .. ..	949	12,111	25,744	22,748	n.a.	n.a.
Hong Kong—						
Grinding and polishing wheels, etc. .. ..	72	48	86	39	117	119
India (c)—						
Grindstones, etc. ..	250	175	255	277	311	316
New Zealand (d)—						
Pumice (a) .. ..	822	735	638	601	n.a.	n.a.
OTHER COUNTRIES						
Austria—						
Natural abrasives ..	—	—	2	4	8	8
Millstones and grindstones .. ..	6	6	6	5	3	3
Corundum, artificial ..	17,279	19,541	18,769	22,740	21,614	21,961
Belgium-Luxemburg						
E.U.—						
Natural abrasives ..	303	484	422	382	1,733	1,761
Carborundum .. ..	184	186	180	215	1,165	1,184
Corundum, artificial ..	224	120	190	158	196	199
Millstones, grindstones, etc. (b) .. ..	1,473	1,581	1,452	2,303	2,793	2,838
Denmark—						
Emery .. ..	2	2	—	1	19	19
Millstones and grindstones .. ..	34	20	12	9	4	4
Finland—						
Grindstones, etc. (b) ..	48	75	70	9	95	97
France—						
Emery .. ..	24	33	62	24	23	23
Corundum .. ..	47	10	45	113	72	73
Pumice .. ..	133	296	280	62	262	266
Other natural abrasives	392	487	170	413	170	173
Millstones and grindstones .. ..	} 2,345	} 2,165	} 2,351	} 2,532	} 2,828	} 2,873
Whetstones .. ..						
Carborundum .. ..						
Corundum, artificial ..	1,589	971	2,485	1,014	n.a.	n.a.
Corundum, artificial ..	13,639	12,160	11,405	13,722	16,382	16,645

\*See also Aluminium, Diamonds and Diatomaceous earth. (c) Years ended March 31 following that stated.

(a) May include pumice for use other than as an abrasive. (d) Year ended June 30 of that stated.

(b) Including artificial.

## EXPORTS OF ABRASIVES (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Emery and corundum	174	17	76	9	36	37
Pumice (c) .. .. .	554,048	636,054	468,033	535,560	550,907	559,747
Other natural abrasives	—	—	—	150	146	148
Millstones, grindstones, etc. (a) .. .. .	6,421	7,985	5,442	9,833	9,893	10,052
Carborundum .. .. .	7,196	7,306	8,027	7,360	8,473	8,609
Corundum, artificial ..	24,443	26,868	27,896	35,152	36,732	37,321
Greece—						
Emery .. .. .	5,170	5,460	6,485	5,835	4,341	4,411
Pumice .. .. .	184,528	113,334	181,128	205,029	132,328	134,451
Italy—						
Pumice .. .. .	314,415	270,090	295,584	295,730	281,925	286,449
Emery and corundum	50	88	21	253		
Other natural abrasives	979	2,179	15,843	20,403	29,700	30,177
Millstones .. .. .						
Grindstones .. .. .	2,774	3,228	3,798	4,984	6,262	6,362
Whetstone .. .. .						
Carborundum .. .. .	8,139	9,574	11,301	11,039	12,741	12,946
Corundum, artificial ..	3,083	3,822	4,584	3,892	4,026	4,091
Netherlands—						
Natural abrasives	4,801	4,862	5,124	5,525	5,518	5,607
Millstones, grindstones, etc. .. .. .	716	805	988	1,172	1,479	1,503
Corundum, artificial ..	19	30	52	32	180	183
Norway—						
Carborundum .. .. .	35,071	35,973	41,541	48,888	48,257	49,031
Sweden—						
Emery .. .. .	—	—	10	33	21	21
Other natural abrasives	35	31				
Carborundum .. .. .	284	130	504	123	110	112
Corundum, artificial ..	1,299	1,337	1,355	2,077	1,619	1,645
Millstones, grindstones, etc. .. .. .	86	48	104	21	302	307
Switzerland—						
Carborundum, emery, etc., crude .. .. .						
do. do. ground .. .. .	3,932	3,414	3,267	4,533	3,921	3,984
Yugoslavia—						
Millstones, grindstones, etc. .. .. .	1,044	5,804	1,236	1,586	1,905	1,936
Carborundum .. .. .	79	—	239	116	707	718
Corundum, artificial ..	4,078	3,200	4,846	5,698	7,332	7,450
Malagasy Republic—						
Garnet .. .. .	6	28	28	2	32	33
South Africa—						
Other natural abrasives	92	5	6	1	15	15
Grinding wheels, etc. ..	171	178	196	311	296	301
Mexico—						
Pumice, etc. .. .. .	6,619	3,596	7,206	388	113	115
United States—						
Corundum .. .. .	(b)	(b)	(b)	(b)	(b)	(b)
Emery powder .. .. .	(b)	(b)	(b)	(b)	(b)	(b)
Grindstones .. .. .	1,960	1,620	2,291	2,131	1,896	1,926
Whetstones, etc. .. ..	273	410	329	408	404	410
Pulp stones .. .. .	1,951	1,838	982	1,098	1,033	1,050
Other natural abrasives	14,893	12,806	18,607	14,660	15,172	15,415
Aluminium oxide, fused	16,282	17,468	13,860	15,180	16,048	16,306
Carborundum .. .. .	7,994	5,770	6,324	5,605	5,752	5,844

(a) Including artificial.

(b) Included with "other natural abrasives".

(c) Including pumice and pumicite for construction purposes.



EXPORTS OF ABRASIVES (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Emery .. .. .	622	637	894	794	661	672
Other natural abrasives	104	564	1,582	2,166	4,186	4,253
Grindstones, etc. ..	1,234	1,376	1,948	2,505	2,755	2,799
Artificial abrasives ..	2,489	2,706	3,151	3,985	4,913	4,992
Turkey—						
Emery .. .. .	26,414	20,328	23,134	47,575	<i>n.a.</i>	<i>n.a.</i>

IMPORTS OF ABRASIVES\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Natural abrasives ..	21,382	55,274	79,885	63,678	69,355	70,468
Corundum, artificial ..	12,411	18,140	13,801	17,691	18,846	19,148
Carborundum ..	12,291	12,780	14,491	15,558	19,904	20,224
Grinding wheels of hard abrasives ..	1,503	1,218	1,691	2,002	2,139	2,173
Grindstones and whetstones etc. ..						
Malta—						
Pumice ..	(£3,134)	(£2,673)	(£3,011)	(£6,004)	(£1,161)	(£1,161)
Grinding and polishing wheels ..	(£7,507)	(£8,331)	(£13,528)	(£16,549)	(£21,361)	(£21,361)
Ghana—						
Grinding and polishing wheels ..	438	103	1,110	349	547	557
Kenya and Uganda—						
Grindstones, etc. ..	45	53	80	73	107	109
Mauritius—						
Grindstones, etc. ..	39	30	46	40	25	25
Nigeria—						
Natural abrasives ..	334	180	43	123	207	210
Grinding stones, etc. ..	203	129	124	117	234	237
Tanzania—						
Grindstones, etc. ..	24	18	30	33	58	59
Zambia—						
Grinding and polishing wheels and stones ..	116	107	99	123	n.a.	n.a.
Canada—						
Pumice ..	12,881	7,890	5,713	4,297	4,482	4,554
Other natural abrasives	7,296	7,441	8,746	8,239	21,921	22,273
Artificial abrasives, ground ..	(£1,564,511)	(£1,483,783)	(£1,567,101)	(£1,685,000)	(£1,352,000)	(£1,352,000)
Artificial abrasive manufactures ..						
Grindstones and wheels ..	(£1,129,022)	(£1,116,324)	(£1,629,153)	(£1,700,000)	(£1,954,000)	(£1,954,000)
Jamaica—						
Natural abrasives ..	61	4	42	7	n.a.	n.a.
Grindstones ..	14	14	66	317	n.a.	n.a.
Trinidad and Tobago—						
Grindstones and wheels	22	13	20	26	22	22
Ceylon—						
Natural abrasives ..	19	70	32	21	n.a.	n.a.
Grinding and polishing wheels, etc. ..	(£13,587)	(£9,093)	(£30,525)	(£56,315)	n.a.	n.a.
Cyprus—						
Grindstones and millstones ..	(£11,838)	(£17,867)	(£23,423)	(£30,120)	(£27,799)	(£27,799)
Hong Kong—						
Natural abrasives ..	256	448	416	510	586	595
Grinding and polishing wheels, etc. ..	257	285	337	374	486	494
India (a)—						
Natural abrasives ..	206	54	388	144	13	13
Carborundum ..	523	474	176	232	499	507
Grinding stones, etc. ..	293	237	129	176	135	137
Malaysia (West)—						
Natural abrasives ..	134	106	104	103	90	91
Grinding and polishing wheels, etc. ..	288	313	377	514	4,050	4,115

\*See also Aluminium, Diamonds and Diatomaceous earth.

(a) Years ended March 31 following that stated.

## IMPORTS OF ABRASIVES (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Sarawak—						
Grinding and polishing wheels, etc. . . . .	23	26	19	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Singapore—						
Grinding and polishing wheels . . . . .	136	107	233	197	<i>n.a.</i>	<i>n.a.</i>
Australia (a)—						
Pumice . . . . .	628	624	417	} 1,530	1,442	1,465
Garnet grains . . . . .	92	116	87			
Tripoli . . . . .	499	425	519			
Other natural abrasives . . . . .	522	420	403			
Grindstones, etc. . . . .	174	375	447	559	679	690
Artificial abrasives . . . . .	4,063	3,592	4,218	7,319	4,851	4,929
New Zealand (a)—						
Pumice . . . . .	78	53	} 113	92	<i>n.a.</i>	<i>n.a.</i>
Corundum, emery, etc. . . . .	7	5				
Grindstones, etc. £ . . . . .	(232,789)	(275,935)				
Irish Republic—						
Grindstones, oilstones, etc. . . . .	239	254	297	371	302	307
<b>OTHER COUNTRIES</b>						
Austria—						
Pumice . . . . .	722	312	456	1,546	548	557
Other natural abrasives . . . . .	122	100	140	164	231	235
Carborundum . . . . .	1,843	1,840	2,073	2,489	2,648	2,691
Corundum, artificial . . . . .	4,070	3,580	4,924	5,788	6,786	6,895
Grindstones . . . . .	} 111	141	218	154	76	77
Millstones . . . . .						
Belgium-Luxemburg						
E.U.—						
Pumice . . . . .	168,845	194,728	138,772	160,272	190,566	193,624
Other natural abrasives . . . . .	801	619	1,044	2,533	2,969	3,017
Corundum, artificial . . . . .	3,211	3,456	3,579	3,786	4,707	4,783
Millstones, grindstones, etc. (b) . . . . .	1,436	1,302	1,156	1,799	2,119	2,153
Carborundum . . . . .	2,905	2,227	2,289	4,073	4,568	4,641
Denmark—						
Emery, etc. . . . .	662	521	483	491	607	617
Pumice . . . . .	4,286	4,807	2,939	7,472	6,004	6,100
Carborundum . . . . .	313	288	342	456	411	418
Corundum, artificial . . . . .	424	476	576	968	1,135	1,153
Millstones and grindstones . . . . .	60	64	55	29	58	59
Finland—						
Emery, pumice, etc. . . . .	267	286	183	241	238	242
Carborundum . . . . .	589	841	718	616	1,181	1,200
Millstones, grindstones, etc. (b) . . . . .	1,355	1,305	1,243	1,754	2,198	2,233
France—						
Emery . . . . .	1,014	755	636	855	832	845
Corundum . . . . .	87	33	38	103	200	203
Pumice . . . . .	38,723	33,168	26,807	18,379	22,652	23,015
Other natural abrasives . . . . .	2,682	7,984	3,147	28,069	53,417	54,274
Millstones and grindstones . . . . .	} 4,087	4,279	4,373	5,729	} 6,540	6,645
Whetstones . . . . .						
Carborundum . . . . .						
Corundum, artificial . . . . .	2,358	3,145	2,602	4,662	4,560	4,633

(a) Years ended June 30 of that stated.

(b) Including artificial.

## IMPORTS OF ABRASIVES (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Emery and corundum ..	(b)	647	876	519	527	535
Pumice, etc. . . . .	75,538	71,303	25,087	16,331	8,228	8,360
Other natural abrasives	3,416	1,826	2,301	2,380	2,564	2,605
Millstones, grindstones,						
etc. (a) . . . . .	6,834	2,533	1,719	3,863	4,903	4,982
Carborundum .. .. .	7,994	7,973	11,197	14,895	16,669	16,936
Corundum, artificial ..	6,636	4,534	5,848	10,746	12,615	12,817
Greece—						
Millstones, grindstones,						
etc. . . . .	188	218	162	173	310	315
Other abrasives .. . .	n.a.	n.a.	9	267	15	15
Iceland—						
Millstones, etc. . . .	14	8	8	18	12	12
Italy—						
Emery and corundum ..	1,469	1,078	1,793	868	2,755	2,799
Other natural abrasives	1,797	1,876	2,005	2,591		
Millstones Grindstones						
etc. . . . .	3,373	3,743	3,591	4,154	4,492	4,564
Corundum, artificial ..	6,887	8,276	6,282	8,328	8,424	8,559
Carborundum .. . . .	2,253	1,839	2,339	3,281	3,387	3,441
Netherlands—						
Pumice and tripoli ..	377,455	355,476	365,471	367,792	362,086	367,897
Other natural abrasives	7,883	9,764	8,009	8,591	8,412	8,547
Millstones and grind-						
stones (a) . . . . .	1,680	1,436	1,679	1,879	2,137	2,171
Corundum, artificial ..	2,849	3,251	3,093	3,580	4,084	4,150
Carborundum .. . . .	679	844	919	995	1,257	1,277
Norway—						
Natural abrasives .. .	392	427	393	540	1,084	1,101
Whetstones .. . . .	5	2	5	5	4	4
Carborundum .. . . .	84	12	10	29	2,427	2,466
Corundum, artificial ..	928	738	623	990	1,072	1,089
Portugal—						
Emery, etc. . . . .	355	111	326	310	299	304
Pumice .. . . .	245	181	122	336	343	349
Millstones etc. . . . .	215	20	279	303	302	307
Spain—						
Emery powder .. . . .	417	370	171	365	433	440
Corundum, artificial ..	2,172	1,681	1,646	3,580	3,747	3,807
Carborundum .. . . .	1,380	1,313	1,137	2,554	3,206	3,257
Sweden—						
Emery .. . . .	359	425	588	498	3,299	3,352
Other natural abrasives	944	301				
Carborundum, etc. . . .	5,392	3,863	4,588	4,437	5,688	5,779
Corundum, artificial ..	5,397	5,177	6,233	5,705	7,750	7,874
Millstones Grindstones,						
etc. . . . .	31	38	17	23	27	27
Switzerland—						
Emery, crude .. . . .	1,031	1,203	1,599	1,812	1,748	1,776
Carborundum, emery,						
etc., ground .. . . .						
Pumice (c) .. . . .	2,744	1,261	1,038	1,842	1,315	1,336
Millstones .. . . .	71	44	n.a.	141	195	198
Grindstones .. . . .						
Whetstones .. . . .						
Corundum, artificial ..	11	2	n.a.	59	56	57
	4,678	4,006	4,430	4,697	4,923	5,002

(a) Including artificial.

(b) Included with "other natural abrasives."

(c) May include pumice for use other than as an abrasive.

## IMPORTS OF ABRASIVES (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Yugoslavia—						
Natural abrasives ..	456	684	384	548	971	987
Millstones, grindstones, etc. (a) ..	858	615	820	1,291	3,938	4,001
Corundum, artificial ..	497	977	1,127	1,798	2,113	2,147
Carborundum ..	951	1,737	974	1,341	1,430	1,453
Malagasy Republic—						
Natural abrasives ..	12	14	19	21	31	32
Morocco—						
Millstones and grind- stones ..	40	48	51	48	68	69
Natural abrasives ..	39	23	9	23	28	28
South Africa—						
Emery ..	4,821	2,792	4,656	2,705	4,404	4,474
Pumice ..						
Other abrasives ..						
Abrasive wheels and discs ..	176	251	260	366	450	457
Grindstones, millstones, etc. ..						
Sudan—						
Natural abrasives ..	51	3	91	211	63	64
Grindstones ..	298	77	143	201	43	44
Tunisia—						
Pumice ..	256	22	150	37	15	15
Millstones and grind- stones (a) ..	71	52	129	85	52	53
Costa Rica—						
Pumice, emery and corundum ..	13	7	7	9	11	11
Guatemala—						
Natural abrasives ..	6	13	25	11	12	12
Mexico—						
Emery ..	669	402	406	115	144	146
Pumice ..	17	39	6	42	13	13
Millstones and grind- stones ..	297	165	124	152	168	171
United States—						
Corundum, crude ..	2,292	1,657	5,045	n.a.	n.a.	n.a.
Pumice, crude ..	8,386	5,091	8,425	7,521	9,500	9,652
do. manufactured ..	3,848	1,860	2,849	1,121	2,617	2,659
Emery, Tripoli, etc. ..	34,993	14,509	28,695	19,000	12,000	12,000
Crude artificial abrasives	260,000	220,000	260,000	266,900	252,600	256,700
Argentina—						
Natural Abrasives ..	n.a.	201	293	281	252	256
Grindstones ..	24	14	23	31	n.a.	n.a.
Brazil—						
Emery, pumice, etc. ..	463	695	858	1,032	n.a.	n.a.
Carborundum ..	246	500	47	1,048	n.a.	n.a.
Millstones, grindstones, etc. ..	130	112	192	258	n.a.	n.a.
Chile—						
Emery ..	n.a.	29	23	n.a.	n.a.	n.a.
Carborundum ..	n.a.	43	41	n.a.	n.a.	n.a.
Millstones, grindstones, etc. ..	n.a.	247	292	n.a.	n.a.	n.a.

(a) Including artificial.

## IMPORTS OF ABRASIVES (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Colombia—						
Emery and pumice ..	109	67	75	n.a.	n.a.	n.a.
Tripoli and other natural abrasives ..	21	30	49	n.a.	n.a.	n.a.
Millstones and grind- stones (a) ..	114	109	48	n.a.	n.a.	n.a.
Corundum, artificial ..	176	n.a.	266	n.a.	n.a.	n.a.
Peru—						
Emery and pumice ..	125	86	47	45	n.a.	n.a.
Millstones, grindstones, etc. (a) ..	159	298	133	141	n.a.	n.a.
Venezuela—						
Natural abrasives ..	193	196	336	420	n.a.	n.a.
Carborundum ..	33	75	41	22	n.a.	n.a.
Iran (b)—						
Emery, etc. ..	53	50	34	53	49	50
Iraq—						
Emery, pumice, etc. ..	9	4	9	5	9	9
Grindstones, whet- stones, etc. ..	258	218	248	264	238	242
Israel—						
Natural abrasives ..	107	110	126	155	241	245
Japan—						
Emery ..	49	34	31	36	33	34
Other natural abrasives	1,796	2,849	4,127	4,932	4,175	4,242
Grindstones, etc. ..	89	123	144	212	257	261
Artificial abrasives ..	970	1,473	3,403	3,649	1,575	1,600
Lebanon—						
Emery ..	3,513	13	39	54	32	33
Pumice, etc. ..	6,167	33	31	2,312	1,364	1,386
Millstones ..	213	194	237	266	182	185
Philippine Republic—						
Emery ..	n.a.	388	223	n.a.	n.a.	n.a.
Pumice ..	n.a.	—	7	n.a.	n.a.	n.a.
Other natural abrasives	n.a.	113	133	n.a.	n.a.	n.a.
Thailand—						
Natural abrasives ..	854	1,149	1,077	1,239	1,690	1,717
Turkey—						
Natural abrasives ..	28	24	24	23	n.a.	n.a.
Carborundum ..	58	61	85	217	n.a.	n.a.
Millstones and grind- stones (a) ..	684	573	589	578	n.a.	n.a.

(a) Including artificial.

(b) Years ended March 20 following that stated.



**ALUMINIUM**  
**(Including Bauxite and Cryolite)**  
**PRODUCTION OF BAUXITE**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Ghana .. .. .	346,800	345,400	287,000	241,900	292,033	296,719
Sierra Leone .. .. .	270,826	329,259	462,891	435,333	441,860	448,951
Jamaica (b) .. .. .	8,918,378	9,247,258	8,391,000	10,280,000	11,820,000	12,010,000
Guyana (c) .. .. .	3,304,701	3,328,000	3,663,000	4,238,000	3,160,681	3,211,410
India .. .. .	734,000	776,538	921,503	1,067,765	1,338,167	1,359,641
Malaysia (West) .. .. .	940,447	885,389	786,042	1,056,068	1,121,318	1,139,315
Australia .. .. .	1,798,261	4,176,474	4,876,822	7,796,003	9,239,701	9,387,998
<b>TOTAL .. .. .</b>	<b>16,320,000</b>	<b>20,536,000</b>	<b>19,396,000</b>	<b>25,049,000</b>	<b>27,414,000</b>	<b>27,854,000</b>
<b>OTHER COUNTRIES</b>						
France .. .. .	2,766,164	2,768,167	2,670,000	2,729,000	2,945,000	2,992,000
Germany (Federal) .. .. .	3,609	2,248	3,200	3,156	2,990	3,038
Greece .. .. .	1,359,248	1,633,000	1,790,000	1,882,000	2,242,337	2,278,320
Hungary .. .. .	1,406,000	1,623,000	1,928,000	1,904,000	1,990,000	2,022,000
Italy .. .. .	r 251,451	238,206	212,782	224,545	221,152	224,701
Roumania .. .. .	(d) 200,000	(d) 500,000	(d) 600,000	(d) 600,000	(d) 600,000	(d) 600,000
Spain .. .. .	3,915	4,682	5,685	4,677	4,464	4,536
U.S.S.R. (a) .. .. .	4,700,000	5,000,000	5,000,000	5,100,000	5,300,000	5,400,000
Yugoslavia .. .. .	1,857,000	2,097,000	2,039,000	2,094,000	2,066,000	2,099,000
Guinea .. .. .	1,583,000	1,639,000	2,084,000	(d)2,500,000	(d)2,400,000	(d)2,400,000
Mozambique .. .. .	6,000	6,177	3,223	4,324	7,033	7,146
Dominican Republic (b) .. .. .	805,463	1,074,370	923,576	1,085,441	1,069,179	1,086,336
Haiti (b) .. .. .	355,718	354,000	439,000	764,000	647,000	656,000
United States (b) .. .. .	1,796,000	1,654,000	1,665,000	1,796,000	2,082,000	2,115,000
Brazil .. .. .	245,984	298,070	r 308,793	356,340	(d) 384,000	(d) 390,000
Surinam .. .. .	5,475,000	5,380,000	5,571,000	6,138,000	5,927,000	6,022,000
Indonesia .. .. .	690,150	905,633	865,413	912,000	1,209,000	1,229,000
Turkey .. .. .	31,770	21,151	n.a.	n.a.	n.a.	n.a.
<b>TOTAL (d) .. .. .</b>	<b>23,000,000</b>	<b>24,800,000</b>	<b>25,500,000</b>	<b>27,500,000</b>	<b>29,100,000</b>	<b>29,600,000</b>
<b>WORLD'S TOTAL (d) .. .. .</b>	<b>39,600,000</b>	<b>45,300,000</b>	<b>44,900,000</b>	<b>53,000,000</b>	<b>56,500,000</b>	<b>57,400,000</b>

Bauxite is known to have been produced in China.

(a) United States Bureau of Mines' estimate.

(b) Dried bauxite equivalent.

(c) Dried bauxite equivalent. Shipments of dried and calcined ore were as follows (long tons):

	Tonnes					Tonnes
	1966	1967	1968	1969	1970	1970
Metallurgical .. .. .	1,306,804	1,582,717	1,547,460	1,834,046	2,104,114	2,137,885
Chemical .. .. .	204,098	184,005	214,609	252,793	197,399	200,567
Refractory .. .. .	363,258	368,218	393,684	454,144	557,010	565,950
Abrasive .. .. .	133,921	92,174	128,936	130,415	69,310	70,422

Exports of calcined ore are shown on page 13.

(d) Estimated.

**PRODUCTION (EXPORTS) OF CRYOLITE IN GREENLAND**

Year	Long tons	Tonnes
1966 .. .. .	63,037	
1967 .. .. .	65,619	
1968 .. .. .	66,432	
1969 .. .. .	48,521	
1970 .. .. .	62,940	63,950

PRODUCTION OF ALUMINIUM

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	36,548	38,430	37,559	33,257	38,960	39,585
Ghana .....	—	39,100	108,900	109,900	106,800	108,500
Canada .. .. .	794,567	860,128	874,260	963,140	947,339	962,544
India .. .. .	82,000	94,703	118,203	121,603	158,537	161,081
Australia .. ..	90,412	91,326	95,810	124,423	201,258	204,488
<b>TOTAL .. .. .</b>	<b>1,003,000</b>	<b>1,123,700</b>	<b>1,234,700</b>	<b>1,352,300</b>	<b>1,452,900</b>	<b>1,476,200</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	76,618	77,501	84,542	88,300	88,583	90,004
Czechoslovakia ..	(b) 61,000	(b) 64,000	(b) 64,000	(a) 65,000	(a) 63,000	(a) 64,000
France .. .. .	357,770	355,505	359,924	366,000	375,000	381,000
Germany—						
Federal .. .. .	240,035	248,902	253,362	258,571	304,461	309,347
East (a) .. .. .	50,000	50,000	50,000	50,000	60,000	60,000
Greece .. .. .	35,628	71,000	75,300	81,840	86,099	87,481
Hungary .. .. .	59,541	60,820	62,092	62,989	64,597	66,000
Italy .. .. .	125,629	125,760	140,100	142,275	144,163	146,476
Netherlands .. .	20,020	31,250	48,000	68,200	73,900	75,100
Norway .. .. .	318,580	355,282	460,903	499,921	521,850	530,200
Poland .. .. .	54,300	91,000	92,000	95,300	97,200	98,800
Roumania .. .. .	46,111	49,210	75,069	88,234	100,000	101,300
Spain .. .. .	62,673	76,947	87,911	116,825	113,327	115,146
Sweden .. .. .	28,000	33,000	54,700	65,010	63,039	64,051
Switzerland .. .	67,640	71,178	75,641	75,843	90,150	91,600
U.S.S.R. .. .. .	(b) 875,000	(b) 950,000	(b) 982,000	(a) 1,000,000	(a) 1,100,000	(a) 1,100,000
Yugoslavia .. ..	41,358	43,870	47,320	47,606	46,950	47,700
Cameroun .. .. .	47,400	47,540	44,682	45,999	51,545	52,372
Mexico .. .. .	20,572	21,173	22,164	31,872	33,200	33,700
United States .. .	2,650,327	2,918,981	2,906,287	3,387,000	3,550,132	3,606,934
Brazil .. .. .	26,461	29,232	40,800	42,900	55,200	56,100
Surinam .. .. .	27,000	30,600	42,800	52,300	54,000	54,900
Venezuela .. .. .	—	3,100	11,000	16,900	22,500	22,900
China (b) .. .. .	100,000	80,000	90,000	120,000	130,000	130,000
Formosa .. .. .	16,945	15,196	19,704	21,800	26,560	26,990
Japan (c) .. .. .	331,945	376,109	474,294	556,073	716,407	727,905
<b>TOTAL .. .. .</b>	<b>5,700,000</b>	<b>6,200,000</b>	<b>6,600,000</b>	<b>7,400,000</b>	<b>8,000,000</b>	<b>8,100,000</b>
<b>WORLD'S TOTAL</b>	<b>6,700,000</b>	<b>7,300,000</b>	<b>7,700,000</b>	<b>8,600,000</b>	<b>9,500,000</b>	<b>9,600,000</b>

In addition secondary metal produced in certain countries was as follows (long tons):

	1966	1967	1968	1969	1970	Tonnes
United Kingdom ..	195,135	188,207	197,190	223,482	211,036	214,423
France .. .. .	59,000	59,000	74,000	89,000	86,000	87,400
Germany (Federal) ..	193,632	182,579	228,240	267,057	254,400	258,500
Italy .. .. .	84,000	100,000	100,000	126,000	151,600	154,000
United States .. .. .	618,778	622,992	729,382	764,100	655,000	666,000
Japan .. .. .	137,200	175,300	216,900	273,000	314,800	319,900

(a) Estimated.

(b) United States Bureau of Mines' estimate.

(c) Including high-purity aluminium.

## EXPORTS OF ALUMINIUM, ETC.\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Alumina and hydrate ..	13,660	21,847	16,853	9,992	3,349	3,403
Unwrought (a) ..	26,017	21,873	20,980	21,384	25,548	25,958
Scrap (a) ..	7,489	2,004	1,591	1,294	1,856	1,886
Semi-manufactures (a)	47,402	37,760	39,397	40,190	40,833	41,488
of which—Foil ..	7,212	6,721	8,872	8,588	8,349	8,483
Powder ..	840	969	1,162	852	841	854
Aluminium sulphates ..	19,167	13,664	17,822	19,873	16,671	16,939
<b>Ghana—</b>						
Bauxite .. ..	306,098	295,693	237,193	241,501	211,082	214,470
Alumina (e) .. ..	—	—	—	41,918	122,660	124,628
<b>Sierra Leone—</b>						
Bauxite .. ..	240,488	329,259	462,891	435,333	385,591	391,780
<b>Canada—</b>						
Alumina (e) .. ..	11,656	11,277	13,414	18,131	21,229	21,570
Unwrought (a) ..	639,627	679,151	770,210	791,685	749,640	761,670
Scrap (a) .. ..	40,867	47,579	46,487	46,355	41,350	42,014
Semi-manufactures (a)	30,732	27,385	26,612	17,111	11,472	11,656
of which—Foil ..	262	206	248	196	231	235
<b>Jamaica—</b>						
Bauxite (b) .. ..	7,019,615	7,142,416	6,212,053	7,601,416	7,683,186	7,806,501
Alumina .. ..	790,690	824,533	r 867,675	1,137,062	1,724,305	1,751,980
<b>Guyana—</b>						
Bauxite, dried ..	1,530,893	1,823,734	1,777,747	1,733,648	2,301,513	2,338,452
do. calcined ..	492,496	458,808	587,217	650,561	705,959	717,290
Alumina .. ..	296,953	268,908	244,231	296,115	323,567	328,760
<b>Hong Kong—</b>						
Scrap .. ..	1,533	1,852	1,978	2,627	2,744	2,788
Semi-manufactures (a)	3,523	3,287	4,625	4,763	5,063	5,144
<b>India—</b>						
Bauxite .. ..	76,705	59,912	97,354	66,656	54,510	55,385
Unwrought (a) (c) ..	396	749	18,554	8,040	1,390	1,412
Semi-manufactures (a)(c)	1,075	1,173	4,059	9,570	8,271	8,404
Aluminium sulphate (c)	157	904	6,611	10,890	18,638	18,937
<b>Malaysia (West)—</b>						
Bauxite .. ..	1,007,158	852,299	776,980	863,003	1,066,107	1,083,218
<b>Singapore—</b>						
Semi-manufactures (a)	889	574	866	764	867	881
of which—Foil ..	191	171	146	68	141	143
Aluminium sulphates ..	6,956	8,211	10,029	7,334	1,068	1,085
<b>Australia—</b>						
Bauxite .. .. (d)	859,000	d)1,500,000	d)1,650,000	d)2,400,000	d)3,350,000	d)3,400,000
Alumina (d) .. ..	n.a.	590,000	1,100,000	1,600,000	1,600,000	1,600,000
Unwrought (a) .. ..	16,210	10,501	5,577	19,453	81,029	82,330
Scrap (a) .. ..	1,454	1,126	2,036	3,683	1,738	1,766
Semi-manufactures (a)	6,470	4,835	4,753	1,782	4,385	4,455
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Unwrought (a) .. ..	36,498	23,220	24,413	26,703	18,545	18,843
Scrap .. ..	5,365	5,806	9,039	8,108	7,040	7,153
Semi-manufactures (a)	26,166	28,655	31,233	39,648	32,877	33,405
of which—Foil ..	3,545	4,828	4,551	5,633	6,612	6,718
Powder ..	2,422	3,800	4,312	4,349	514	522

\*In these tables the description "unwrought" aluminium corresponds to item 684.1 of the Standard International Trade Classification (revised) and comprises ingots, blocks, unwrought bars, etc. "Semi-manufactures" corresponds to S.I.T.C. (revised) 684.2 and includes foil and powder as well as wrought bars, rods, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(c) Years ended March 31 following that stated.

(b) Estimated dry equivalent; shipments contain 8–14% free moisture.

(d) Estimated.

(e) Officially described as "Aluminium ores and/or concentrates" but believed to consist wholly or largely of alumina.

## EXPORTS OF ALUMINIUM, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Belgium-Luxemburg						
E.U.—						
Bauxite .. .. .	—	—	20	180	72	73
Cryolite .. .. .	489	1	—	—	289	294
Alumina and hydrate .. .. .	13	131	25	16	18	18
Unwrought .. .. .	1,633	5,160	6,225	9,482	9,698	9,854
do. alloys .. .. .	1,493	1,551	807	861	287	292
Scrap .. .. .	8,284	9,741	11,283	13,395	13,581	13,799
Semi-manufactures (a)	121,559	101,427	112,668	129,790	130,523	132,618
Aluminium sulphates .. .. .	15,015	13,947	n.a.	n.a.	n.a.	n.a.
Denmark—						
Refined cryolite .. .. .	26,381	27,844	28,345	44,683	32,649	33,173
Unwrought .. .. .	146	18	25	—	71	72
do. alloys .. .. .	2,513	1,808	2,333	2,342	2,211	2,246
Scrap .. .. .	1,040	1,174	808	700	1,070	1,087
Semi-manufactures (a)	1,151	1,473	2,637	3,644	4,420	4,491
of which—Foil .. .. .	218	350	495	1,149	1,591	1,617
Finland—						
Unwrought .. .. .	806	830	1,266	597	24	24
Semi-manufactures .. .. .	1,256	1,646	2,695	3,644	4,949	5,028
of which—Foil .. .. .	1,158	1,516	2,367	2,922	4,327	4,396
France—						
Bauxite .. .. .	275,748	155,757	154,836	145,696	156,675	159,189
Cryolite .. .. .	11	102	1,573	1,489	1,456	1,479
Alumina .. .. .	141,902	181,314	204,079	249,511	197,206	200,371
do. hydrate .. .. .	13,691	19,758	26,287	32,493	62,437	63,439
Unwrought .. .. .	110,682	102,170	120,319	112,576	93,101	94,595
do. alloys .. .. .	57,661	35,896	63,588	64,392	51,589	52,417
Scrap (a) .. .. .	11,657	13,144	12,123	12,105	19,343	19,653
Semi-manufactures (a)	57,208	66,313	68,657	84,601	100,359	101,969
of which—Foil .. .. .	8,453	9,588	10,187	12,265	15,747	16,000
Powder .. .. .	810	663	1,112	2,611	2,231	2,267
Aluminium sulphates .. .. .	9,903	11,911	5,522	6,537	7,684	7,807
Germany (Federal)—						
Bauxite and cryolite .. .. .	4,367	2,486	2,152	2,295	6,390	6,493
Alumina .. .. .	90,674	111,992	85,195	106,722	94,388	95,903
do. hydrate .. .. .	37,777	42,194	47,554	58,269	74,611	75,808
Unwrought .. .. .	10,695	8,890	8,441	11,365	12,669	12,872
do. alloys .. .. .	10,454	12,568	14,333	23,882	35,349	35,916
Scrap (a) .. .. .	6,750	10,494	7,663	6,651	11,868	12,058
Semi-manufactures (a)	79,022	94,683	116,242	147,866	133,888	136,037
of which—Foil .. .. .	31,143	32,372	37,293	44,758	46,678	47,427
Powder .. .. .	2,376	3,117	3,554	3,337	3,827	3,888
Greece—						
Bauxite .. .. .	1,150,820	1,113,827	1,171,464	1,288,466	1,215,298	1,234,800
Unwrought .. .. .	27,144	58,971	62,695	66,601	59,064	60,012
Semi-manufactures .. .. .	1,344	2,160	1,606	5,240	8,585	8,723
Alumina .. .. .	n.a.	33,223	71,125	116,650	167,075	169,756
Hungary—						
Bauxite .. .. .	611,000	657,450	654,847	645,748	649,443	659,865
Alumina .. .. .	172,000	241,131	355,457	377,413	408,724	415,283
Unwrought .. .. .	16,087	19,172	46,778	40,402	51,749	52,579
Semi-manufactures .. .. .	6,834	7,817	4,637	4,509	6,168	6,267
Italy—						
Bauxite .. .. .	1,589	315	—	25	2,820	2,865
Alumina .. .. .	6,994	8,556	9,224	6,750	8,889	9,032
do. hydrate .. .. .	2,515	1,883	2,212	1,770	1,862	1,892
Unwrought .. .. .	20,317	4,864	24,977	4,883	2,940	2,987
do. alloys .. .. .						
Semi-manufactures (a)	26,640	29,471	43,202	49,150	40,837	41,494
of which—Foil .. .. .	3,294	4,018	5,535	6,295	6,114	6,212
Aluminium sulphates .. .. .	3,654	n.a.	n.a.	35	2,302	2,339

(a) Including alloys.

## EXPORTS OF ALUMINIUM, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Netherlands—</b>						
Bauxite .. .. .	375	70	380	971	4,167	4,234
Unwrought (a) .. .	15,901	25,193	43,031	63,055	63,041	64,053
Scrap (a) .. .. .	11,549	10,055	11,645	16,543	14,155	14,382
Semi-manufactures (a)	17,188	18,760	26,551	36,775	39,477	40,110
of which—Foil .. .	4,242	5,030	5,957	7,608	8,184	8,315
Powder .. .. .	26	5	2	18	6	6
Aluminium sulphates ..	18	4	15,433	20,544	32,305	32,823
<b>Norway—</b>						
Unwrought .. .. .	316,031	292,854	390,562	421,650	372,375	378,351
do. alloys .. .. .	26,480	17,091	37,762	51,097	50,587	51,399
Scrap .. .. .	1,821	3,728	5,500	6,638	5,229	5,313
Semi-manufactures (a)	7,574	7,645	12,134	25,309	33,443	33,980
of which—Foil .. .	236	287	210	348	248	252
Powder .. .. .	84	35	32	3	—	—
<b>Spain—</b>						
Unwrought .. .. .	—	10,673	5,516	620	10	10
Semi-manufactures (a)	3,161	4,555	6,952	8,805	10,582	10,752
<b>Sweden—</b>						
Unwrought (a) .. .	587	3,826	15,849	11,022	15,950	16,206
Scrap .. .. .	719	1,428	948	543	1,969	2,001
Semi-manufactures (a)	13,769	18,336	18,154	25,954	27,132	27,567
of which—Powder ..	447	504	584	793	988	1,004
Aluminium sulphates ..	4,530	3,575	8,030	14,461	30,630	31,122
<b>Switzerland—</b>						
Alumina and hydrate	102	65	87	124	139	141
Unwrought and scrap (a)	13,176	19,516	23,829	17,988	14,214	14,442
Semi-manufactures (a)	7,138	25,958	26,580	28,324	30,491	30,980
<b>U.S.S.R.—</b>						
Cryolite .. .. .	3,800	3,800	5,300	5,300	5,512	5,600
Unwrought .. .. .	251,700	249,103	283,058	315,000	363,074	368,900
Semi-manufactures ..	53,900	59,400	78,244	101,200	128,931	131,000
<b>Yugoslavia—</b>						
Bauxite .. .. .	1,455,887	1,784,128	1,817,636	1,951,275	1,999,660	2,031,749
Alumina and hydrate ..	12,831	11,405	20,556	23,329	27,753	28,198
Unwrought .. .. .	1,646	6,225	18,378	23,024	13,572	13,790
Scrap .. .. .	145	153	4,102	4,969	3,725	3,785
Semi-manufactures ..	17,841	18,053	21,948	13,221	12,515	12,716
<b>Cameroun—</b>						
Unwrought .. .. .	45,384	46,170	35,500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Guinea—</b>						
Alumina .. .. .	512,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Morocco—</b>						
Scrap (a) .. .. .	565	429	481	640	469	477
<b>Mozambique—</b>						
Bauxite .. .. .	5,535	6,194	5,594	4,233	7,025	7,138
<b>South Africa—</b>						
Semi-manufactures	1,513	1,375	1,699	2,094	2,928	2,976
<b>Tunisia—</b>						
Unwrought and scrap	181	139	135	261	93	94
<b>Dominican Republic—</b>						
Bauxite .. .. .	985,465	<sup>c</sup> 1,000,644	1,187,789	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Greenland—</b>						
Cryolite .. .. .	63,037	65,619	66,432	48,521	62,940	63,950
<b>Haiti—</b>						
Bauxite (b) (c) .. .	328,000	362,000	461,506	693,287	714,120	725,574

(a) Including alloys. (b) Including shipments from stockpile built up during development period.  
 (c) United States imports.

## EXPORTS OF ALUMINIUM, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States .. .. .						
Alumina, etc. .. .. .	296,127	499,090	790,181	892,420	981,989	997,747
Cryolite (b) .. .. .	2,481	1,096	671	709	599	609
Unwrought (a) .. .. .	168,071	186,615	160,964	307,511	364,696	370,548
Scrap (a) .. .. .	43,451	48,689	44,131	77,014	51,035	51,854
Semi-manufactures .. .. .	87,374	100,910	119,145	120,956	149,428	151,826
<i>of which—Foil.. .. .</i>	<i>2,761</i>	<i>3,225</i>	<i>3,633</i>	<i>4,732</i>	<i>5,936</i>	<i>6,031</i>
<i>Powder (Al content)</i>	<i>810</i>	<i>1,009</i>	<i>1,149</i>	<i>1,160</i>	<i>2,748</i>	<i>2,792</i>
Aluminium sulphates .. .. .	19,696	14,440	16,296	10,959	15,827	16,081
Argentina—						
Unwrought .. .. .	8	10	—	—	—	—
Aluminium sulphates .. .. .	39	25	47	59	72	73
Brazil—						
Bauxite .. .. .	2,235	2,195	3,193	2,677	3,360	3,414
Surinam—						
Bauxite .. .. .	4,512,113	3,804,839	3,726,000	3,619,000	<i>n.a.</i>	<i>n.a.</i>
Alumina .. .. .	343,344	673,727	692,000	847,000	<i>n.a.</i>	<i>n.a.</i>
Unwrought .. .. .	25,295	30,606	42,900	52,900	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Unwrought (a) .. .. .	3,747	955	3,490	194	1,004	1,020
Semi-manufactures (a)	2,819	3,288	1,315	5,710	4,417	4,488
Aluminium sulphates .. .. .	240	424	<i>n.a.</i>	365	98	100
Indonesia—						
Bauxite .. .. .	677,134	887,754	834,312	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Israel—						
Scrap .. .. .	889	836	875	1,337	1,081	1,098
Japan—						
Bauxite .. .. .	796	514	325	142	108	110
Cryolite .. .. .	—	—	—	48	295	300
Alumina .. .. .	106,623	73,317	12,196	90,209	99,642	101,241
do. hydrate .. .. .	11,031	12,840	14,602	20,525	24,287	24,677
Unwrought .. .. .	18,392	1,249	250	1,114	2,999	3,047
do. alloys .. .. .	577	658	1,010	1,806	2,471	2,511
Semi-manufactures (a)	30,633	19,243	35,283	40,597	47,693	48,458
<i>of which—Foil.. .. .</i>	<i>4,212</i>	<i>4,959</i>	<i>5,518</i>	<i>6,837</i>	<i>6,476</i>	<i>6,580</i>
Aluminium sulphates .. .. .	14,587	13,048	9,878	10,465	16,985	17,258

(a) Including alloys.

(b) Including artificial.



## IMPORTS OF ALUMINIUM, ETC.\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bauxite, uncalcined ..	454,068	436,604	405,722	443,117	385,693	391,883
do. calcined ..	104,531	91,049	118,706	135,570	134,184	136,338
Cryolite ..	2,439	1,533	2,300	1,452	4,841	4,919
Alumina and Hydrate	6,856	5,910	5,777	8,529	53,413	54,270
Unwrought ..	259,029	223,971	260,063	240,246	247,988	251,968
do. alloys ..	81,436	77,779	94,230	108,451	124,978	126,984
Scrap (a) ..	15,981	13,905	12,783	13,009	15,227	15,471
Semi-manufactures (a)	28,261	30,284	37,870	46,185	75,242	76,449
of which—Foil ..	3,423	2,210	3,659	5,977	7,640	7,763
Malta—						
Semi-manufactures ..	(£38,835)	(£52,911)	(£86,185)	(£108,747)	(£157,368)	(£157,368)
Ghana—						
Alumina ..	18,320	114,673	680,819	206,468	213,654	217,083
Unwrought (a) ..	207	387	233	166	772	784
Semi-manufactures (a)	7,068	2,020	1,836	1,987	2,229	2,265
Kenya—						
Unwrought (a) ..	n.a.	3	2	4	3	3
Semi-manufactures (a)	653	693	1,273	1,139	1,617	1,643
of which—Foil ..	179	209	174	314	340	346
Malawi—						
Semi-manufactures ..	511	494	226	465	146	148
Mauritius—						
Semi-manufactures (a)	277	272	166	116	128	130
Nigeria—						
Unwrought and semi-manufactures (a) ..	1,232	1,950	2,927	4,617	8,244	8,376
Sierra Leone—						
Semi-manufactures (a)	168	165	294	n.a.	n.a.	n.a.
Tanzania—						
Unwrought ..	3,349	673	2,024	2,730	2,479	2,519
Semi-manufactures (a)	341	215	161	281	303	308
Uganda—						
Semi-manufactures (a)	463	400	733	1,602	1,051	1,068
of which—Foil ..	112	83	147	218	220	224
Zambia—						
Semi-manufactures (a)	340	368	509	508	n.a.	n.a.
Barbados—						
Semi-manufactures (a)	120	116	109	115	105	107
Jamaica—						
Semi-manufactures (a)	2,656	4,403	3,239	3,373	n.a.	n.a.
Canada—						
Bauxite ..	2,254,078	2,286,887	2,241,430	2,224,247	2,485,559	2,525,445
Alumina ..	721,285	679,228	759,367	949,127	928,415	943,313
Cryolite ..	3,260	2,751	4,052	3,419	2,212	2,248
Unwrought ..	15,110	7,300	13,431	10,296	11,987	12,179
Scrap (a) ..	20,899	8,522	14,539	13,910	5,119	5,201
Semi-manufactures (a)						
(excluding Foil) ..	53,076	71,796	78,877	83,245	77,460	78,703
of which—Powder ..	797	524	545	841	1,000	1,016
Foil ..	406	916	553	471	654	665
Aluminium sulphates ..	2,104	1,608	1,658	1,801	2,487	2,527
Trinidad and Tobago—						
Semi-manufactures (a)	638	766	398	938	442	450
Aluminium sulphates ..	1,128	1,165	1,647	1,540	1,952	1,983
Guyana—						
Semi-manufactures (a)	140	465	524	386	271	275
Aluminium sulphates ..	347	536	243	485	—	—

\*See footnote on p.13 concerning the descriptions "unwrought" aluminium and "semi-manufactures" used in these tables.

(a) Including alloys.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES—(cont.)						
Ceylon—						
Semi-manufactures (a)	2,409	2,034	2,305	n.a.	n.a.	n.a.
of which—Foil..	65	362	405	n.a.	n.a.	n.a.
Cyprus—						
Semi-manufactures (a)	400	417	781	782	1,118	1,136
Hong Kong—						
Bauxite .. .. .	63	500	348	85	19	19
Unwrought (a) ..	7,088	9,761	13,267	11,397	15,008	15,248
Scrap .. .. .	81	120	57	521	310	316
Semi-manufactures (a)	3,669	2,466	4,740	6,548	5,996	6,092
of which—Foil..	683	751	795	937	797	809
Aluminium sulphate ..	1,065	888	2,216	2,322	2,153	2,187
India (b)—						
Cryolite .. .. .	1,152	1,068	384	1,014	1,190	1,209
Alumina .. .. .	15,798	19,064	5,720	14,782	3,743	3,803
Unwrought .. .. .	9,593	24,977	7,825	1,790	5,511	5,600
do. alloys .. .. .	52	98	18	1,829	58	59
Semi-manufactures (a)	22,697	13,123	1,812	650	700	711
of which—Foil..	90	144	99	42	69	70
Powder .. .. .	156	202	64	19	5	5
Aluminium sulphate ..	—	10	—	—	1	1
Malaysia (West)—						
Unwrought (a) .. ..	1,566	1,522	1,593	1,488	155	157
Semi-manufactures (a)	2,953	2,927	2,808	3,127	5,105	5,187
of which—Foil..	804	813	816	1,172	2,541	2,582
Sabah—						
Semi-manufactures (a)	130	104	35	125	47	48
Sarawak—						
Semi-manufactures (a)	340	179	352	n.a.	n.a.	n.a.
Aluminium sulphates ..	340	374	479	n.a.	n.a.	n.a.
Singapore—						
Bauxite .. .. .	61,080	295	688	572	705	716
Alumina and hydrate ..	3,293	3,722	5,109	7,120	7,840	7,965
Semi-manufactures (a)	3,108	2,730	4,294	6,166	6,464	6,568
of which—Foil..	370	455	482	578	757	769
Aluminium sulphate ..	252	139	503	1,413	1,420	1,443
Australia—						
Cryolite .. .. .	187	237	201	(d) 266	(d) 254	(d) 258
Alumina and hydrate (c)	51,074	59,045	10,204	3,745	3,202	3,253
Unwrought (a) .. ..	449	361	11,975	1,062	402	408
Scrap (a) .. .. .	937	1,468	856	754	767	779
Semi-manufactures (a)	2,460	2,177	2,942	4,096	3,578	3,635
of which—Foil..	702	516	1,285	1,377	1,544	1,569
Powder .. .. .	257	365	418	158	197	200
New Zealand (c)—						
Unwrought .. .. .	7,872	9,910	6,790	9,660	13,049	13,258
Semi-manufactures (a)	2,924	5,621	4,321	5,787	6,997	7,110
of which—Foil..	829	875	814	887	1,030	1,047
Irish Republic—						
Unwrought (a) .. ..	10,189	8,228	8,295	8,203	5,002	5,082
Semi-manufactures (a)	4,851	4,706	5,666	6,195	6,413	6,516
of which—Foil..	841	694	786	898	715	726
Aluminium sulphates ..	3,288	845	394	513	37	37

(a) Including alloys.

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

(d) Including chiolite.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Bauxite .. .. .	24,191	30,459	24,656	25,648	29,098	29,565
Cryolite .. .. .	415	351	255	410	352	358
Alumina .. .. .	151,498	163,102	164,342	185,121	182,738	185,670
do. hydrate .. ..	6,008	5,402	6,092	6,206	6,293	6,394
Unwrought (a) .. .	2,463	5,256	7,592	7,300	9,703	9,859
Semi-manufactures (a)	7,683	7,148	6,701	9,211	11,262	11,443
Aluminium sulphates ..	2,141	2,379	2,408	2,464	3,008	3,056
<b>Belgium-Luxemburg—</b>						
Bauxite .. .. .	9,546	7,975	11,154	17,104	12,662	12,865
Cryolite .. .. .	136	254	281	323	427	434
Alumina .. .. .	1,342	1,945	2,061	2,318	3,535	3,592
do. hydrate .. ..	11,738	11,841	9,908	10,443	9,163	9,310
Unwrought .. .. .	106,061	105,645	111,432	121,559	133,438	135,579
do. alloys .. .. .	44,080	32,127	45,474	52,106	48,650	49,431
Scrap .. .. .	1,765	1,701	2,086	4,702	6,359	6,461
Semi-manufactures (a)	24,861	22,401	22,728	28,433	29,664	30,140
of which—Foil .. .	3,473	3,508	3,982	5,525	5,115	5,197
Powder .. .. .	533	718	341	306	911	926
Aluminium sulphates ..	229	233	7,927	10,789	15,504	15,753
<b>Denmark—</b>						
Bauxite .. .. .	1,363	1,997	935	966	1,049	1,066
Crude cryolite .. ..	46,123	48,456	54,402	48,521	62,940	63,950
Unwrought .. .. .	5,089	5,716	7,512	6,896	9,171	9,318
do. alloys .. .. .	1,354	3,214	2,331	6,781	1,268	1,288
Scrap .. .. .	1,075	605	3,086	1,547	1,425	1,448
Semi-manufactures (a)	14,467	16,787	18,721	23,443	27,846	28,293
of which—Foil .. .	3,577	4,116	4,276	5,055	5,390	5,477
Powder .. .. .	146	172	159	218	224	228
Aluminium sulphates ..	5,611	4,659	6,038	8,249	6,604	6,710
<b>Finland—</b>						
Alumina .. .. .	54	74	66	70	72	73
do. hydrate .. ..	13,470	16,388	12,029	16,176	15,089	15,331
Unwrought (a) .. .	11,788	14,232	12,068	14,977	18,417	18,713
Semi-manufactures (a)	13,702	13,564	15,787	17,151	19,799	20,117
of which—Foil .. .	1,489	1,405	1,476	1,282	1,775	1,804
Powder .. .. .	171	126	174	183	255	259
Aluminium sulphates ..	7,507	6,431	3,383	1,981	645	655
<b>France—</b>						
Bauxite .. .. .	151,131	222,803	329,558	472,319	481,168	488,889
Cryolite .. .. .	1,953	1,408	1,604	2,122	8,574	8,712
Alumina .. .. .	20,072	2,902	30,826	4,895	6,013	6,110
do. hydrate .. ..	133	312	383	525	975	991
Unwrought .. .. .	80,024	91,263	87,867	119,807	151,647	154,081
do. alloys .. .. .	5,868	5,951	8,446	20,221	28,795	29,257
Scrap (a) .. .. .	5,397	5,455	5,228	13,887	12,541	12,742
Semi-manufactures (a)	29,943	37,608	58,279	85,150	63,363	64,380
of which—Foil .. .	8,805	10,408	13,753	17,274	15,174	15,418
Powder .. .. .	855	1,675	2,382	2,323	2,082	2,115
Aluminium sulphates ..	1,030	1,360	2,220	7,587	13,964	14,188
<b>Germany (Federal)—</b>						
Bauxite .. .. .	1,852,721	1,773,565	1,947,020	1,987,200	2,585,815	2,627,310
Cryolite .. .. .	2,734	1,580	1,523	2,807	2,516	2,556
Alumina .. .. .	50,743	64,488	47,709	83,083	117,635	119,523
do. hydrate .. ..	1,304	1,664	1,604	1,291	1,415	1,438
Unwrought .. .. .	147,335	153,665	220,923	306,172	313,000	318,023
do. alloys .. .. .	26,666	28,788	66,687	108,943	113,966	115,795
Scrap .. .. .	50,045	48,933	66,031	79,441	66,313	67,377
Semi-manufactures (a)	37,917	38,143	68,186	90,901	92,287	93,768
of which—Foil .. .	4,844	4,502	6,257	7,769	9,999	10,159
Powder .. .. .	1,281	2,785	3,439	3,326	2,182	2,217

(a) Including alloys.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Germany (East)—</b>						
Bauxite .. .. .	285,549	313,990	237,014	241,282	251,643	255,681
Alumina .. .. .	28,599	49,310	43,788	63,624	62,205	63,203
<b>Greece—</b>						
Alumina .. .. .	2,286	294	245	408	<i>n.a.</i>	<i>n.a.</i>
do. hydrate .. .. .	8,961	1,420	1,047	1,046	1,386	1,408
Unwrought .. .. .	6,406	2,419	1,598	1,035	446	453
Semi-manufactures (a)	1,494	967	1,061	1,438	1,648	1,675
of which—Foil .. .. .	434	762	923	1,178	981	997
Aluminium sulphates ..	209	<i>n.a.</i>	—	101	2	2
<b>Hungary—</b>						
Unwrought .. .. .	—	—	64,234	48,632	80,748	82,004
<b>Iceland—</b>						
Semi-manufactures .. ..	400	241	630	343	451	458
<b>Italy—</b>						
Bauxite .. .. .	526,353	533,968	576,670	578,416	712,354	723,785
Cryolite .. .. .	559	623	436	720	629	639
Alumina .. .. .	29,549	22,507	41,537	65,008	61,912	62,906
do. hydrate .. .. .	7,446	3,754	5,450	6,739	8,672	8,811
Unwrought .. .. .	62,236	80,834	84,504	104,425	128,443	130,504
do. alloys .. .. .						
Scrap .. .. .	52,339	63,842	43,100	53,992	55,305	56,192
Semi-manufactures (a)	20,290	25,933	23,378	29,091	36,805	37,396
of which—Foil .. .. .	4,810	5,266	4,730	6,939	7,153	7,268
Powder .. .. .	143	79	160	220	157	160
Aluminium sulphates ..	4,332	6,524	6,859	8,829	4,542	4,615
<b>Netherlands—</b>						
Bauxite .. .. .	34,745	16,278	40,296	105,908	82,501	83,825
Cryolite .. .. .	1,533	779	1,018	735	899	914
Alumina .. .. .	61,312	65,339	101,258	138,358	160,388	163,470
do. hydrate .. .. .	9,428	9,857	18,530	17,561	24,357	24,748
Unwrought (a) .. .. .	19,515	19,112	32,700	42,639	44,640	45,356
Scrap (a) .. .. .	3,823	4,516	8,646	9,460	10,726	10,898
Semi-manufactures (a)	34,218	36,520	40,626	50,370	50,533	51,344
of which—Foil .. .. .	5,880	6,422	7,641	8,148	8,394	8,529
Powder .. .. .	148	196	319	302	336	342
Aluminium sulphates ..	13,074	13,630	12,249	12,934	9,376	9,527
<b>Norway—</b>						
Bauxite .. .. .	32,056	34,293	36,510	21,970	3,936	3,999
Cryolite .. .. .	4,442	4,247	4,362	4,305	4,219	4,287
Alumina .. .. .	604,873	701,340	916,897	966,143	979,723	995,445
Unwrought .. .. .	8,085	10,714	9,766	13,629	12,014	12,207
do. alloys .. .. .	964	1,487	11,476	11,866	11,325	11,507
Scrap .. .. .	571	294	576	52	27	27
Semi-manufactures (a)	10,565	11,846	10,323	16,333	13,882	14,105
of which—Foil .. .. .	648	666	930	916	1,209	1,228
Powder .. .. .	123	145	135	313	270	274
Aluminium sulphates ..	1,441	780	461	669	645	655
<b>Poland—</b>						
Bauxite .. .. .	113,687	106,112	110,482	95,019	116,216	118,081
Cryolite .. .. .	4,127	4,351	4,208	3,541	2,009	2,041
Alumina .. .. .	118,136	164,670	193,198	192,890	209,648	213,012
<b>Portugal—</b>						
Cryolite .. .. .	32	49	47	49	69	70
Unwrought (a) .. .. .	836	610	756	823	1,733	1,761
Semi-manufactures (a)	8,014	7,783	8,350	9,700	11,464	11,648
of which—Powder .. .. .	101	186	92	102	100	102
Aluminium sulphates ..	4,723	4,213	5,414	6,180	7,772	7,897

(a) Including alloys.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Spain—</b>						
Bauxite .. .. .	76,327	63,675	71,592	92,132	91,740	93,212
Cryolite .. .. .	1,143	1,155	1,042	1,951	956	971
Alumina and hydrate ..	137,219	156,262	178,350	211,740	241,626	245,503
Unwrought and scrap ..	25,736	15,669	15,874	21,326	8,959	9,103
Semi-manufactures (a)	11,418	9,069	5,871	6,219	4,389	4,459
<i>of which—Powder</i> ..	55	51	75	146	146	148
<b>Sweden—</b>						
Bauxite .. .. .	26,770	48,344	40,397	48,103	58,854	59,799
Cryolite .. .. .	292	1,234	1,255	424	1,560	1,585
Alumina and hydrate ..	47,162	84,977	141,480	145,766	181,458	184,370
Unwrought .. .. .	31,899	20,587	14,040	20,300	27,757	28,203
do. alloys .. .. .	8,562	8,598	10,423	13,838	12,001	12,194
Scrap .. .. .	235	1,074	2,125	2,196	2,058	2,091
Semi-manufactures (a)	21,825	24,997	25,693	31,700	32,899	33,427
<i>of which—Foil</i> ..	4,216	3,596	3,930	4,626	5,260	5,345
<i>Powder</i> .. .. .	414	318	324	243	323	328
Aluminium sulphates ..	6,489	5,284	5,867	4,873	3,329	3,383
<b>Switzerland—</b>						
Bauxite .. .. .	1,954	583	329	291	2,422	2,461
Cryolite .. .. .	507	876	640	541	733	745
Alumina .. .. .	132,545	141,888	159,342	147,076	173,402	176,185
Unwrought and scrap (a)	13,176	6,694	15,331	18,819	21,770	22,119
Semi-manufactures (a)	7,138	6,615	7,938	10,487	10,742	10,914
Aluminium sulphates ..	4,799	4,063	3,936	4,140	5,000	5,080
<b>U.S.S.R.—</b>						
Bauxite .. .. .	(c) 774,800	(b) 620,960	(b) 705,213	(c) 1,305,167	(c) 1,383,663	(c) 1,405,867
Semi-manufactures ..	600	n.a.	2,160	1,470	1,575	1,600
<b>Yugoslavia—</b>						
Bauxite .. .. .	6,983	7,693	9,803	221,691	254,024	258,100
Cryolite .. .. .	n.a.	n.a.	n.a.	15	22	22
Alumina and hydrate ..	67	3,429	1,287	7,015	8,340	8,473
Unwrought .. .. .	25,707	24,900	21,221	38,538	56,033	56,932
Semi-manufactures (a)	1,188	2,739	4,279	8,409	18,166	18,458
<i>of which—Foil</i> ..	824	1,278	1,702	2,867	4,398	4,467
<b>Algeria—</b>						
Unwrought .. .. .	n.a.	143	315	286	n.a.	n.a.
Semi-manufactures (a)	n.a.	1,182	2,285	3,646	n.a.	n.a.
Aluminium sulphates	n.a.	814	731	720	n.a.	n.a.
<b>Angola—</b>						
Semi-manufactures ..	695	854	909	1,086	1,111	1,129
Aluminium sulphates ..	n.a.	n.a.	966	1,358	1,979	2,011
<b>Cameroun—</b>						
Alumina .. .. .	43,140	72,540	n.a.	n.a.	n.a.	n.a.
<b>Egypt—</b>						
Unwrought and scrap ..	8,196	8,384	8,007	4,506	4,588	4,662
Semi-manufactures ..	1,542	500	277	1,209	887	901
<i>of which—Foil</i> ..	258	140	158	n.a.	325	330
<b>Malagasy Republic—</b>						
Unwrought and scrap ..	371	351	800	459	329	334
Aluminium sulphates	276	441	502	465	445	452
<b>Morocco—</b>						
Bauxite .. .. .	984	1,970	1,575	n.a.	481	489
Alumina and hydrate ..	598	652	737	720	717	728
Semi-manufactures (a)	1,565	2,505	2,114	3,187	3,439	3,494
<i>of which—Foil</i> ..	129	41	55	27	344	350
<i>Powder</i> .. .. .	62	102	63	151	79	80
Aluminium sulphates ..	661	65	40	3	—	—
<b>Mozambique—</b>						
Semi-manufactures (a)	465	496	447	658	688	699

(a) Including alloys.

(b) Imports from Yugoslavia.

(c) Imports from Greece and Yugoslavia.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes						
	1966	1967	1968	1969	1970	1970						
OTHER COUNTRIES (cont.)												
South Africa—												
Bauxite .. .. .	15,438	8,310	12,059	16,253	13,825	14,047						
Cryolite .. .. .							66	54	84	86		
Alumina and hydrate ..							559	685	903	1,341	14,927	15,166
Unwrought .. .. .							26,907	17,560	23,816	40,540	48,343	49,119
Semi-manufactures (a)							9,225	9,924	8,502	6,743	13,994	14,217
of which—Foil .. .. .	205	370	516	939	1,373	1,396						
Powder .. .. .	31	63	84	54	141	143						
Sudan—												
Semi-manufactures (a)	1,193	1,368	938	954	809	822						
Aluminium sulphates ..	809	669	1,214	5,446	324	329						
Tunisia—												
Unwrought and scrap (a)	16	14	1	1	53	54						
Semi-manufactures ..	394	556	510	511	603	613						
Costa Rica—												
Semi-manufactures (a)	794	828	1,128	1,169	2,276	2,313						
Honduras—												
Semi-manufactures ..	484	1,114	386	500	219	223						
Mexico—												
Bauxite, calcined .. ..	9,732	13,332	11,351	18,539	25,111	25,514						
Alumina and hydrate ..	46,790	47,310	49,123	71,779	80,078	81,363						
Unwrought .. .. .	117	145	1,589	99	36	37						
Semi-manufactures ..	1,164	3,885	7,308	9,560	10,904	11,079						
Aluminium sulphates ..	3	2	18	30	24	24						
Nicaragua—												
Semi-manufactures ..	745	751	528	736	947	962						
Salvador—												
Semi-manufactures (a)	882	1,387	1,235	373	1,275	1,295						
United States—												
Bauxite, crude dried (c)	11,529,000	11,594,000	10,976,000	12,180,000	12,650,000	12,850,000						
do. calcined .. .. .	204,173	214,136	207,316	220,458	255,909	260,016						
Cryolite .. .. .	28,263	32,428	30,154	18,220	19,687	19,393						
Alumina and hydrate ..	478,387	871,793	1,200,883	1,719,402	2,302,852	2,339,806						
Unwrought (a) .. .. .	371,183	328,297	515,045	418,153	312,551	317,567						
Scrap .. .. .	30,015	27,222	33,501	25,758	32,839	33,366						
Semi-manufactures ..	112,337	55,444	63,293	56,861	85,476	86,848						
of which—Foil (b) ..	2,490	1,573	1,706	1,554	n.a.	n.a.						
Aluminium sulphates ..	10,815	10,883	13,587	n.a.	10,935	11,110						
Argentina—												
Bauxite .. .. .	42,873	33,539	36,935	29,444	40,994	41,652						
Ingots and bars .. .. .	36,356	30,532	39,533	51,749	49,920	50,721						
Brazil—												
Cryolite .. .. .	1,076	1,121	1,367	1,142	2,137	2,171						
Alumina .. .. .	576	455	67	535	193	196						
do. hydrate .. .. .	582	467	642	531	449	456						
Unwrought (a) .. .. .	38,916	28,641	30,753	48,493	27,988	28,437						
Semi-manufactures (a)	1,342	1,068	1,571	4,852	3,881	3,943						
of which—Foil .. .. .	242	203	234	333	428	435						
Powder .. .. .	176	424	646	1,232	1,929	1,960						
Aluminium sulphates ..	6	7	—	—	—	—						
Chile—												
Unwrought .. .. .	2,700	3,990	3,143	n.a.	n.a.	n.a.						
Bars, sheets and alloys ..	400	1,000	1,128	n.a.	n.a.	n.a.						
Colombia—												
Bauxite .. .. .	8,841	5,893	5,836	n.a.	n.a.	n.a.						
Alumina and hydrates ..	206	259	472	n.a.	n.a.	n.a.						
Unwrought (a) .. .. .	8,473	4,673	8,876	n.a.	n.a.	n.a.						
Semi-manufactures (a)	1,211	972	1,135	n.a.	n.a.	n.a.						
Aluminium sulphates ..	641	4	1	n.a.	n.a.	n.a.						

(a) Including alloys. (b) Excluding eaves 5½ in. by 5½ in. recorded by number only.  
(c) Dry Bauxite equivalent.



## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>Ecuador—</b>						
Semi-manufactures ..	354	655	n.a.	n.a.	n.a.	n.a.
Aluminium sulphates ..	969	2,290	n.a.	n.a.	n.a.	n.a.
<b>Peru—</b>						
Unwrought (a) ..	2,391	3,016	3,308	2,900	n.a.	n.a.
Semi-manufactures (a) ..	1,555	1,504	1,693	1,593	n.a.	n.a.
Aluminium sulphates ..	249	54	157	5	n.a.	n.a.
<b>Uruguay—</b>						
Unwrought .. ..	1,463	1,746	1,220	1,298	n.a.	n.a.
Aluminium sulphates ..	1,722	3,445	n.a.	n.a.	n.a.	n.a.
<b>Venezuela—</b>						
Unwrought .. ..	1,727	2,651	306	20	n.a.	n.a.
Semi-manufactures ..	6,255	9,906	8,420	6,023	n.a.	n.a.
Aluminium sulphates ..	12,023	9,688	13,642	11,977	n.a.	n.a.
Alumina and hydrate ..	364	458	25,489	33,434	n.a.	n.a.
<b>Burma—</b>						
Unwrought .. ..	1,360	576	1,133	n.a.	n.a.	n.a.
Semi-manufactures (a) }						
<b>Formosa—</b>						
Bauxite .. ..	88,921	101,715	54,393	104,269	124,370	126,366
Foil .. ..	17	62	400	114	192	195
<b>Iran (b)—</b>						
Unwrought (a) ..	6,048	4,547	5,691	8,973	4,777	4,854
Semi-manufactures ..	2,013	2,809	3,471	4,450	6,493	6,597
<b>Iraq—</b>						
Semi-manufactures (a)	4,106	3,206	3,811	3,010	3,370	3,424
Aluminium sulphates ..	7,043	3,323	n.a.	9,298	4,656	4,731
<b>Israel—</b>						
Unwrought .. ..	6,915	5,198	10,343	10,371	12,113	12,307
Semi-manufactures ..	2,241	2,776	3,498	4,007	5,070	5,151
of which—Foil.. ..	120	115	203	235	285	290
<b>Japan—</b>						
Bauxite .. ..	1,793,101	2,052,979	2,411,163	3,072,493	3,602,319	3,660,126
Cryolite .. ..	4,883	8,863	7,445	8,723	8,441	8,576
Unwrought .. ..	47,504	133,543	139,081	266,172	229,683	233,369
do. alloys .. ..	28,281	29,025	27,409	42,811	24,542	24,936
Scrap .. ..	18,792	2,665	2,404	2,480	1,042	1,059
do. alloys .. ..						
Semi-manufactures (a)	1,866	3,473	3,862	4,721	3,276	3,329
Alumina and hydrate ..	96,697	116,721	175,828	220,120	345,599	351,145
<b>Jordan—</b>						
Semi-manufactures ..	532	386	516	505	712	723
of which—Foil.. ..	117	84	87	84	94	96
<b>Korea (South)—</b>						
Unwrought and semi- manufactures ..	9,852	12,198	14,496	15,842	5,738	5,830
<b>Lebanon—</b>						
Unwrought .. ..	3,860	3,658	4,192	7,253	7,582	7,704
Semi-manufactures ..	575	511	813	547	920	935
<b>Philippine Republic—</b>						
Unwrought .. ..	7,100	7,345	9,187	n.a.	n.a.	n.a.
Semi-manufactures (a) }						
of which—Foil.. ..	n.a.	255	445	n.a.	n.a.	n.a.
Aluminium sulphates ..	n.a.	1,117	n.a.	n.a.	n.a.	n.a.
<b>Southern Yemen—</b>						
Unwrought .. ..	208	164	183	n.a.	n.a.	n.a.
<b>Syria—</b>						
Unwrought .. ..	116	69	425	522	239	243

(a) Including alloys.

(b) Years ending March 20 following that stated.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Thailand—						
Unwrought (a) ..	3,853	4,484	5,148	5,881	8,290	8,423
Semi-manufactures (a)	2,873	3,434	3,522	4,390	4,510	4,581
of which—Foil. . .	1,010	1,381	1,197	1,537	1,618	1,644
Aluminium sulphates ..	199	326	528	1,098	1,164	1,183
Turkey—						
Unwrought (a) ..	8,102	9,128	12,445	13,046	n.a.	n.a.
Semi-manufactures (a)	2,825	3,925	2,928	2,900	n.a.	n.a.
of which—Foil. . .	1,846	2,630	1,970	2,130	n.a.	n.a.
Aluminium sulphates ..	8,382	1,415	6,448	6,968	n.a.	n.a.
Alumina and hydrate ..	56	186	131	232	n.a.	n.a.

(a) Including alloys.

**ANTIMONY**  
**PRODUCTION OF ANTIMONY ORE**  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada (a) .. ..	—	—	—	—	—	—
Sarawak .. ..	65	31	23	85	393	399
Australia (b) .. ..	98	91	158	142	100	102
<b>OTHER COUNTRIES</b>						
Austria .. ..	650	679	692	613	600	610
Czechoslovakia (e) .. r	500	r 500	r 600	600	600	600
France .. ..	275	164	—	—	—	—
Italy .. ..	261	609	1,248	1,275	1,233	1,253
Portugal .. ..	4	23	20	1	—	—
Spain .. ..	98	119	130	118	79	80
U.S.S.R. (e) .. ..	7,000	7,000	7,000	7,000	7,000	7,000
Yugoslavia .. ..	3,550	3,030	2,620	(e) 3,000	(e) 2,000	(e) 2,000
Algeria .. ..	(f) 60	100	53	60	59	60
Morocco .. ..	1,232	1,463	1,254	1,500	2,044	2,077
South Africa .. ..	11,191	12,201	16,585	17,816	17,365	17,644
Guatemala .. ..	14	30	14	98	1,694	1,721
Mexico .. ..	4,407	3,741	3,408	3,176	4,397	4,468
United States (d) .. ..	828	796	764	823	1,009	1,025
Bolivia (g) .. ..	10,499	11,295	10,940	12,893	11,393	11,576
Peru (c) .. ..	835	738	773	588	589	598
China (f) .. ..	15,000	12,000	12,000	12,000	12,000	12,000
Japan .. ..	76	56	19	3	5	5
Thailand .. ..	1,046	1,010	186	806	2,865	2,911
Turkey .. ..	1,503	912	1,456	2,580	2,950	3,000
<b>TOTAL*</b> .. ..	<b>60,000</b>	<b>58,000</b>	<b>62,000</b>	<b>66,000</b>	<b>68,000</b>	<b>69,000</b>

\*Excluding any antimony ore produced in Hungary, Afghanistan and Iran.

- (a) The following figures represent the antimony content of antimonial lead and of flue dust and slags (long tons): 1966—628; 1967—566; 1968—518; 1969—377; 1970—320 (325 tonnes).
- (b) In addition the antimony content of antimonial slag obtained as a by-product of lead refining was as follows (long tons): 1966—873; 1967—839; 1968—683; 1969—759; 1970—737 (749 tonnes);
- (c) Metal plus content of ore.
- (d) Secondary metal was recovered as follows (long tons): 1966—21,659; 1967—21,129; 1968—21,160; 1969—17,778; 1970—19,129 (19,435 tonnes).
- (e) Estimate.
- (f) United States Bureau of Mines' estimate.
- (g) Content of ore exported plus exports of metal.

EXPORTS OF ANTIMONY

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Regulus and refined ..	751	840	1,678	1,607	964	979
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	383	465	389	193	138	140
Sulphide .. .. .	262	290	397	375	221	225
France—						
Crude and regulus ..	38	52	139	191	95	97
Germany (Federal)—						
Ore .. .. .	—	106	—	—	—	—
Regulus, scrap, etc. ..	205	186	118	74	144	146
Oxide .. .. .	263	238	236	139	244	248
Italy—						
Regulus and scrap ..	1	1	20	102	793	806
Netherlands—						
Regulus (a) .. .. .	7	9	12	18	93	95
Oxide .. .. .	31	22	31	65	122	124
Sweden—						
Regulus .. .. .	22	11	1	76	31	31
U.S.S.R.—						
Regulus .. .. .	2,400	1,300	787	1,200	886	900
Yugoslavia—						
Regulus .. .. .	1,981	1,720	1,267	1,246	1,239	1,259
Morocco—						
Ore .. .. .	3,169	3,272	2,687	2,772	3,330	3,383
South Africa—						
Ore .. .. .	17,658	20,437	25,440	31,474	26,357	26,780
Mexico—						
Ore and concentrates ..	14,264	9,404	6,079	8,385	15,423	15,670
Regulus and refined ..	316	186	307	270	164	167
United States—						
Metal and alloys .. .. .	26	73	97	127	485	493
Oxide .. .. .	75	148	106	185	388	394
Bolivia—						
Ore (Sb content) .. .. .	10,471	11,287	10,900	12,300	11,393	11,576
Regulus .. .. .	27	8	n.a.	n.a.	—	—
Peru—						
Ore and metal (Sb content) .. .. .	852	886	1,325	1,033	n.a.	n.a.
Thailand—						
Ore .. .. .	3,146	2,734	1,085	1,333	3,246	3,298
Turkey—						
Ore .. .. .	2,863	2,586	1,983	3,486	n.a.	n.a.
Sulphide .. .. .	352	950	565	1,900	n.a.	n.a.

(a) Including scrap.

## IMPORTS OF ANTIMONY, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Zambia— Refined and regulus ..	81	13	53	29	<i>n.a.</i>	<i>n.a.</i>
Canada— Oxide .. .. .	332	237	354	352	377	383
India— Ore .. .. .	2,077	1,504	1,777	1,610	688	699
Metal .. .. .	56	17	1	6	2	2
Oxide (d) .. .. .	65	90	23	49	51	52
Australia (c)— Regulus .. .. .	186	20	2	30	65	66
<b>OTHER COUNTRIES</b>						
Austria— Regulus .. .. .	112	125	127	88	44	45
Belgium-Luxemburg E.U.— Regulus (a) .. .. .	102	108	23	47	4	4
Oxide .. .. .	60	50	115	77	123	125
Denmark— Regulus .. .. .	146	119	66	107	22	22
France— Ore .. .. .	1,497	1,241	2,392	4,030	4,360	4,430
Crude and regulus (a) ..	2,398	2,177	1,213	981	356	362
Sulphide .. .. .	11	11	14	6	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal)— Ore .. .. .	3,147	2,976	3,323	4,309	2,016	2,048
Regulus, scrap, etc. ..	2,733	2,364	1,418	1,576	1,797	1,826
Oxide .. .. .	581	572	1,042	1,397	1,540	1,565
Greece— Regulus .. .. .	34	28	44	7	10	10
Italy— Ore .. .. .	830	760	4,610	649	956	971
Regulus and scrap .. ..	491	584	145	323	143	145
Oxide .. .. .	264	298	397	544	361	367
Sulphide .. .. .	18	25	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands— Regulus (a) .. .. .	273	145	144	120	156	159
Oxide .. .. .	510	485	543	698	623	633
Norway— Regulus .. .. .	43	84	119	68	21	21
Spain— Ore .. .. .	305	64	885	658	425	432
Regulus .. .. .	140	288	216	191	241	245
Oxide .. .. .	307	193	160	77	37	38
Sweden— Regulus .. .. .	340	299	475	413	191	194
Switzerland— Regulus .. .. .	191	266	274	208	151	154
Yugoslavia— Ore .. .. .	160	<i>n.a.</i>	<i>n.a.</i>	1,319	1,908	1,939
Morocco— Regulus .. .. .	15	12	8	19	5	5
Mexico— Oxide .. .. .	26	18	20	4	4	4
United States— Ore (Sb content) ..	11,125	9,390	9,477	10,802	15,000	15,000
Crude .. .. .	56	25	53	55	<i>n.a.</i>	<i>n.a.</i>
Regulus (b) .. .. .	2,471	2,370	2,404	1,242	1,339	1,360
Oxide .. .. .	4,807	4,552	4,286	4,210	3,800	3,861

(a) Including scrap.

(b) Including waste and scrap.

(c) Years ended June 30 of that stated.

(d) Years ended March 31 following that stated.

## IMPORTS OF ANTIMONY, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Argentina—						
Ore .. .. .	427	484	279	363	66	67
Brazil—						
Ore .. .. .	290	232	227	182	94	96
Regulus .. .. .	233	69	313	255	48	49
Oxide .. .. .	111	77	113	130	167	170
Sulphide .. .. .	106	109	108	70	<i>n.a.</i>	<i>n.a.</i>
Chile—						
Regulus .. .. .	64	25	58	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Metal .. .. .	20	19	16	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Regulus .. .. .	10	4	15	1	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Regulus .. .. .	34	10	71	58	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ore and concentrates ..	7,286	8,927	7,946	12,457	17,070	17,344
Regulus .. .. .	305	876	61	5	20	20
Sulphide .. .. .	20	152	<i>n.a.</i>	19	32	33

**ARSENIC**  
**PRODUCTION OF ARSENIC**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada—						
White arsenic (a) ..	313	337	309	152	89	90
<b>OTHER COUNTRIES</b>						
France—						
White arsenic .. ..	11,853	13,947	13,300	13,800	13,390	13,608
Germany (Federal) (b)—						
White arsenic, etc. ..	371	102	595	302	432	439
Portugal—						
White arsenic .. ..	191	248	180	230	194	197
Spain—						
White arsenic .. ..	110	127	128	98	<i>n.a.</i>	<i>n.a.</i>
Sweden—						
White arsenic .. ..	14,458	19,901	20,767	16,239	16,000	16,300
South West Africa—						
Lead concentrates						
( <i>As content</i> ) .. ..	744	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
White arsenic .. ..	39	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Ores ( <i>As<sub>2</sub>O<sub>3</sub> content</i> ) ..	11,706	11,157	10,086	5,951	6,414	6,516
Brazil—						
White arsenic .. ..	315	218	307	295	<i>n.a.</i>	<i>n.a.</i>
Peru—						
White arsenic .. ..	359	263	1,207	473	<i>n.a.</i>	<i>n.a.</i>
Japan—						
White arsenic .. ..	538	633	675	701	<i>n.a.</i>	<i>n.a.</i>

Arsenic has also been produced in the United Kingdom, Austria, Belgium, Czechoslovakia, East Germany, Hungary, U.S.S.R., United States, Argentina, Iran, China and Korea.

(a) Refined white arsenic produced plus the content of crude arsenic exported but excluding arsenic contained in gold ores exported.

(b) Exports.

## EXPORTS OF ARSENIC, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom— Arsenates and Arsenites	8,941	6,874	2,962	3,706	3,024	3,072
Organo-arsenic compounds .. ..	£45,483	£34,464	£38,061	£61,727	£104,170	£104,170
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Arsenates and arsenites	2	—	59	49	41	42
France—						
White arsenic .. ..	10,714	12,514	13,041	11,438	10,278	10,443
Arsenates .. ..	49	94	46	75	103	105
Germany (Federal)—						
White arsenic, etc. ..	371	102	595	302	432	439
Arsenates .. ..	64	22	16	13	30	30
Italy—						
White arsenic .. ..	5	3	30	112	24	24
Arsenates and arsenites	12	4	3	21	17	17
Netherlands—						
White arsenic .. ..	2	9	14	25	—	—
Arsenates and arsenites	8	13	10	9	1	1
Portugal—						
White arsenic .. ..	370	186	105	163	138	140
Sweden—						
White arsenic .. ..	16,580	n.a.	n.a.	n.a.	n.a.	n.a.
Metallic arsenic .. ..	512	n.a.	n.a.	n.a.	n.a.	n.a.
Yugoslavia—						
White arsenic .. ..	—	64	26	587	218	222
South West Africa—						
Lead concentrates (As content) .. ..	744	n.a.	n.a.	n.a.	n.a.	n.a.
White arsenic .. ..	39	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico—						
White arsenic, pure ..	9,260	8,122	3,295	5,275	6,540	6,645
do. crude	1,612	2,416	2,985	1,163	321	327
Japan—						
White arsenic .. ..	42	52	63	6	8	8



## IMPORTS OF ARSENIC, ETC

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
White arsenic .. ..	9,918	9,527	<i>n.a.</i>	<i>n.a.</i>	7,192	7,307
Arsenates and arsenites	9	13	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>India (b)—</b>						
Arsenic and its oxides ..	248	556	668	695	286	291
<b>Malaysia (West)—</b>						
Arsenite of soda .. ..	8,157	5,875	3,149	2,833	1,332	1,353
<b>Australia (a)—</b>						
White arsenic .. ..	1,198	1,499	1,863	1,006	1,216	1,236
Arsenates and arsenites	42	49	13	36	29	29
<b>New Zealand (a)—</b>						
White arsenic, etc. ..	153	159	141	161	<i>n.a.</i>	<i>n.a.</i>
Arsenate of lead .. ..	23	30	16	27	<i>n.a.</i>	<i>n.a.</i>
Other arsenates and arsenites .. ..	5	20	—	20	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
White arsenic, etc. ..	46	21	32	65	67	68
<b>Belgium-Luxemburg</b>						
E.U.—						
White arsenic .. ..	21	20	5	10	1,427	1,450
<b>Denmark—</b>						
White arsenic .. ..	22	25	27	31	55	56
Arsenates and arsenites	2	2	2	1	1	1
<b>France—</b>						
Metallic arsenic .. ..	38	16	51	79	96	98
White arsenic .. ..	39	5	20	5	1	1
<b>Germany (Federal)—</b>						
Metallic arsenic .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(c) 67	(c) 81	(c) 82
White arsenic, etc. ..	1,151	1,058	1,007	944	1,139	1,157
<b>Greece—</b>						
White arsenic .. ..	66	<i>n.a.</i>	94	167	<i>n.a.</i>	<i>n.a.</i>
Arsenates and arsenites	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Italy—</b>						
White arsenic .. ..	1,587	1,461	2,620	2,312	1,337	1,358
Metallic arsenic (c) ..	28	61	88	97	77	78
Arsenates and arsenites	12	14	29	43	12	12
<b>Netherlands—</b>						
White arsenic etc. ..	823	950	932	1,023	826	839
Arsenates and arsenites	19	—	—	—	—	—
<b>Norway—</b>						
White arsenic .. ..	69	72	105	66	81	82
<b>Portugal—</b>						
Arsenate of soda .. ..	12	1	—	<i>n.a.</i>	—	—
<b>Switzerland—</b>						
White arsenic, etc. ..	85	85	120	93	75	76
<b>Yugoslavia—</b>						
Metallic arsenic .. ..	1	9	10	8	7	7
White arsenic .. ..	104	250	481	759	58	59
Arsenates .. ..	17	<i>n.a.</i>	4	—	—	—
<b>Malagasy Republic—</b>						
Arsenates .. ..	11	17	11	10	11	11
<b>Tunisia—</b>						
Arsenates and arsenites	5	6	6	4	—	—
<b>Mexico—</b>						
White arsenic .. ..	—	—	—	4	—	—

(a) Years ended June 30 of that stated.  
(c) May include some tellurium.

(b) Years ended March 31 of year following that stated.

## IMPORTS OF ARSENIC, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES						
(cont.)						
United States—						
Metallic arsenic ..	162	263	366	309	407	414
White arsenic .. ..	16,679	24,174	22,495	16,223	16,752	17,021
Sulphide .. ..	27	258	100	85	8	8
Arsenate of soda ..	163	113	33	491	83	84
Argentina—						
White arsenic ..	481	396	427	460	560	569
Brazil—						
Metallic arsenic ..	7	15	—	9	—	—
White arsenic .. ..	256	612	514	266	108	110
Arsenates .. ..	5	—	12	12	6	6
Chile—						
White arsenic .. ..	85	113	46	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
White arsenic .. ..	9	23	157	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Arsenate of lead ..	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
White arsenic .. ..	2,743	2,011	3,365	2,590	918	933
Sulphide .. ..	30	22	73	49	56	57
Turkey—						
Arsenic compounds ..	26	19	77	52	<i>n.a.</i>	<i>n.a.</i>

**ASBESTOS**  
**PRODUCTION OF ASBESTOS**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Anthrophyllite .. ..	65	50	—	—	<i>n.a.</i>	<i>n.a.</i>
Rhodesia .. ..	(c) 156,000	(c) 95,763	(c) 84,642	(c) 80,000	(c) 80,000	(c) 80,000
Swaziland .. ..	32,270	35,852	38,341	38,468	32,535	33,057
Canada (a)—						
Chrysotile .. ..	1,329,513	1,296,521	1,424,956	1,438,543	1,477,000	1,500,700
Crude .. ..	<i>n.a.</i>	257	259	6,265	<i>n.a.</i>	<i>n.a.</i>
Fibre .. ..	<i>n.a.</i>	629,728	693,755	614,218	<i>n.a.</i>	<i>n.a.</i>
Shorts and Waste .. ..	<i>n.a.</i>	666,536	730,942	818,060	<i>n.a.</i>	<i>n.a.</i>
Cyprus .. ..	24,519	19,477	19,012	21,363	28,253	28,706
India .. ..	7,476	7,982	8,930	9,494	9,679	9,834
Australia—						
Chrysotile .. ..	560	527	799	734	804	816
Crocidolite .. ..	11,464	120	—	—	—	—
Total .. ..	1,561,000	1,470,000	1,580,000	1,580,000	1,628,000	1,653,000
<b>OTHER COUNTRIES</b>						
Bulgaria .. ..	1,772	1,476	2,054	2,768	(c) 3,500	(c) 3,500
Finland .. ..	11,830	(c) 11,600	12,932	13,828	13,410	13,625
France .. ..	295	148	492	—	—	—
Greece .. ..	38	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Italy .. ..	80,774	99,149	101,803	110,706	116,739	118,612
Portugal .. ..	10	51	84	200	199	202
U.S.S.R. (c) .. ..	743,000	757,000	787,000	984,000	1,027,000	1,043,000
Yugoslavia .. ..	7,509	8,879	10,230	11,280	11,913	12,104
Egypt .. ..	1,837	11,748	2,560	—	—	—
Mozambique .. ..	<i>n.a.</i>	499	118	775	224	228
South Africa—						
Amosite .. ..	85,658	84,730	86,831	88,528	95,842	97,380
Blue .. ..	128,462	119,901	107,803	122,700	135,068	137,235
Chrysotile .. ..	32,841	35,086	37,982	42,868	51,967	52,801
United States (d) .. ..	112,436	109,990	107,759	112,443	111,887	113,682
Argentina .. ..	56	492	341	326	(c) 313	(c) 318
Bolivia (b) .. ..	4	2	1	—	—	—
China (c) .. ..	140,000	150,000	150,000	160,000	170,000	170,000
Formosa .. ..	644	563	1,181	3,032	2,797	2,842
Japan—						
Chrysotile .. ..	14,832	16,019	24,100	20,668	21,050	21,386
Amphibole .. ..	4,300	8,122	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Korea (South) .. ..	320	2,132	3,259	5,800	1,350	1,372
Philippine Republic .. ..	492	57	31	44	1,194	1,213
Turkey .. ..	4,084	3,851	3,487	5,087	1,658	1,685
Total* .. ..	1,500,000	1,500,000	1,450,000	1,690,000	1,770,000	1,800,000
WORLD'S TOTAL* .. ..	3,000,000	3,000,000	3,000,000	3,300,000	3,400,000	3,500,000

\*Including an estimate for asbestos produced in Brazil but excluding asbestos known to have been produced in Czechoslovakia, Roumania, Eritrea and North Korea.

(a) Sales and shipments.

(b) Exports.

(c) United States Bureau of Mines' estimate.

(d) Sold or used by producers.

EXPORTS OF ASBESTOS

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unmanufactured ..	4,695	4,246	4,389	4,711	4,665	4,740
Packing, etc. ..	10,718	8,985	9,469	11,063	9,590	9,744
Cement products ..	33,322	31,427	32,986	38,371	33,888	34,432
Yarn and cloth ..	3,927	3,182	3,656	4,101	27,944	28,392
Other manufactures ..	13,147	12,418	12,778	12,009		
Canada—						
Crude .. ..	154	204	180	121	91	92
Fibre .. ..	654,094	583,286	645,641	695,215	736,003	747,814
Shorts and waste ..	636,969	614,763	657,437	701,773	658,935	669,509
Manufactured ..	(£786,070)	(£866,527)	(£1,231,018)	(£1,565,000)	(£2,569,000)	(£2,569,000)
Cyprus—						
Unmanufactured ..	18,888	18,541	17,700	22,146	23,752	24,133
India—						
Unmanufactured ..	29	68	22	7	30	30
Manufactured (a) ..	70	89	147	313	240	244
Cement products (a) ..	394	1,587	5,612	11,318	8,871	9,013
Malaysia (West)—						
Cement products ..	2,217	3,869	8,649	12,689	16,684	16,952
Other manufactures ..	214	39	17	5	34	35
Singapore—						
Cement products ..	26,762	15,842	16,614	17,211	15,866	16,120
Other manufactures ..	136	640	214	138	214	217
Australia—						
Unmanufactured ..	4,146	2,254	718	330	436	443
Packing (b) ..	(£216,215)	(£41,200)	(£94,181)	(£93,000)	(£170,797)	(£170,797)
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured ..	1,674	13	56	53	29	29
Manufactured (c) ..	2,482	2,923	3,039	3,813	3,390	3,444
Cement products (d) ..	10,833	5,995	17,909	30,422	38,264	38,878
Belgium-Luxemburg						
E.U.—						
Unmanufactured ..	43	32	987	227	938	953
Manufactured (c) ..	663	598	620	1,392	2,479	2,519
Cement products (d) ..	189,675	196,249	204,628	210,927	227,190	230,836
Denmark—						
Unmanufactured ..	47	59	48	361	63	64
Manufactured (c) ..	726	1,058	886	1,061	1,027	1,044
Cement products (d) ..	6,774	6,690	9,866	14,742	20,234	20,559
Finland—						
Unmanufactured ..	8,393	8,709	10,159	11,760	9,188	9,335
Manufactured ..	570	517	577	1,420	2,051	2,084
France—						
Unmanufactured ..	1,899	1,069	1,014	781	198	201
Manufactured (c) ..	4,776	4,519	5,311	5,429	5,524	5,613
Cement products (d) ..	50,758	28,577	23,301	32,969	73,213	74,388
Germany (Federal)—						
Unmanufactured ..	469	501	1,474	692	909	924
Manufactured (c) ..	6,863	8,085	11,218	11,358	16,488	16,753
Cement products (d) ..	24,957	55,882	58,424	44,515	45,545	46,276
Greece—						
Manufactured (e) ..	r 140	505	114	1,751	n.a.	n.a.

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

(c) Including brake and clutch linings of material other than asbestos.

(d) Including manufactures of other fibro-cements.

(e) Including manufactures of asbestos cement.

## EXPORTS OF ASBESTOS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES (cont.)</b>						
Italy—						
Unmanufactured ..	35,370	33,488	41,168	45,321	47,771	48,538
Manufactured (a) ..	1,493	1,085	617	1,821	2,228	2,264
Cement products (b) ..	50,518	84,568	23,523	65,018	75,509	76,721
Netherlands—						
Unmanufactured ..	15	53	54	159	271	275
Manufactured (a) ..	2,271	2,564	3,489	3,730	3,779	3,840
Cement products (b) ..	4,030	3,485	4,608	4,224	5,308	5,393
Portugal—						
Unmanufactured ..	18	57	n.a.	72	177	180
Manufactured ..	1,134	919	53	1,626	1,861	1,891
Spain—						
Manufactured (a) ..	406	488	691	1,040	862	876
Cement products (b) ..	303	1,610	2,668	11,189	29,701	30,178
Sweden—						
Unmanufactured ..	55	22	20	35	181	184
Manufactured (a) ..	150	66	105	167	184	187
Cement products ..	23,028	25,115	15,627	17,134	18,279	18,572
Switzerland—						
Unmanufactured ..	84	73	31	50	65	66
Manufactured (a) ..	250	261	433	473	363	369
Cement products (b) ..	3,193	1,572	5,930	4,819	2,372	2,410
U.S.S.R.—						
Unmanufactured ..	252,700	280,696	298,805	341,000	379,215	385,300
Yugoslavia—						
Unmanufactured ..	2,533	1,634	1,545	2,410	4,666	4,741
Manufactured ..	1,181	1,378	2,160	2,904	4,402	4,473
Cement products ..	24,410	6,194	45,543	60,276	41,001	41,659
Morocco—						
Cement products ..	5,463	6,381	7,808	6,328	7,003	7,115
Mozambique—						
Unmanufactured ..	106	204	118	774	311	316
South Africa—						
Unmanufactured (c) ..	229,827	230,321	254,279	273,907	285,794	290,381
Cement products ..	5,143	9,274	7,450	8,335	5,842	5,935
Other manufactures ..	(£186,849)	(£266,985)	(£261,123)	(£109,299)	(£135,282)	(£135,282)
United States—						
Unmanufactured ..	41,687	46,608	36,801	30,822	34,138	34,686
Spun, woven and packing ..	3,195	4,469	5,236	6,179	5,606	5,696
Brake linings ..	(£1,874,550)	(£2,110,857)	(£2,385,000)	(£2,835,000)	(£2,323,000)	(£2,323,000)
Clutch facings ..	(£679,149)	(£844,488)	(£965,833)	(£1,235,833)	(£802,500)	(£802,500)
Pipe covering and cement ..	13,171	21,406	14,774	12,254	10,532	10,701
Other manufactures ..	(£1,811,000)	(£1,580,900)	(£2,163,750)	(£2,363,750)	(£2,335,417)	(£2,335,417)
Bolivia—						
Unmanufactured ..	4	2	1	—	n.a.	n.a.
Colombia—						
Cement products ..	17,316	16,700	5,526	3,969	n.a.	n.a.
Peru—						
Manufactured ..	—	15	n.a.	n.a.	n.a.	n.a.
Formosa—						
Unmanufactured ..	68	56	44	44	149	151
Manufactured ..	185	87	—	52	215	218
Japan—						
Unmanufactured ..	700	326	189	1,448	166	169
Manufactured ..	4,656	3,877	4,588	4,577	5,254	5,338
Cement products ..	37,696	15,254	28,756	28,617	100,346	101,956

(a) Including brake and clutch linings of material other than asbestos.

(b) Including manufactures of other fibro-cements.

(c) Including, if any, produce of Botswana and Swaziland.

EXPORTS OF ASBESTOS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Lebanon—						
Cement products ..	28,576	26,984	34,144	33,803	23,024	23,393
Thailand—						
Cement products ..	812	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,361	1,383
Turkey—						
Unmanufactured ..	591	—	—	—	<i>n.a.</i>	<i>n.a.</i>

## IMPORTS OF ASBESTOS

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unmanufactured—						
Crude and fibre ..	178,561	160,173	163,239	160,462	145,817	148,157
Waste .. .. .	10,659	6,996	12,178	16,524	6,377	6,479
Manufactured ..	569	1,991	2,129	7,111	8,702	8,841
Cement products ..	26,071	29,587	30,586	21,951	23,738	24,119
Channel Islands—						
Manufactured (a) ..	1,314	2,323	2,243	3,529	1,210	1,229
Malta—						
Manufactured .. ..	(£13,560)	(£22,612)	(£22,220)	(£66,994)	(£111,976)	(£111,976)
Gambia—						
Cement sheets and pipes	624	311	13	58	144	146
Ghana—						
Cement sheets, pipes etc.	18,222	10,594	70,703	58,630	9,730	9,886
Kenya—						
Manufactured .. ..	1,906	4,180	3,994	2,136	1,294	1,315
Mauritius—						
Manufactured .. ..	2,252	1,164	2,552	1,537	1,023	1,039
Nigeria—						
Cement sheets and pipes	5,885	1,230	73	62	1,258	1,278
Unmanufactured ..	4,521	9,708	15,036	20,036	33,899	34,443
Sierra Leone—						
Cement sheets and pipes	1,920	1,809	744	n.a.	n.a.	n.a.
Tanzania—						
Manufactured .. ..	2,651	1,420	4,717	2,076	3,498	3,554
Uganda—						
Unmanufactured ..	1,416	764	1,276	1,926	2,429	2,468
Manufactured .. ..	819	841	1,392	1,598	1,212	1,232
Zambia—						
Unmanufactured ..	1,106	759	125	—	n.a.	n.a.
Cement products ..	(£403,620)	3,639	5,966	4,679	n.a.	n.a.
Canada—						
Unmanufactured ..	5,857	6,512	5,296	6,651	5,208	5,292
Packing .. .. .	425	628	594	547	660	671
Other manufactures ..	(£1,996,352)	(£2,829,464)	(£3,445,618)	(£4,124,000)	(£3,669,900)	(£3,669,900)
Barbados—						
Manufactured .. ..	48	17	139	120	112	114
Bermuda—						
Sheets, etc. .. ..	(£12,424)	(£13,752)	(£19,434)	(£21,122)	n.a.	n.a.
Grenada—						
Manufactured .. ..	1	7	4	n.a.	n.a.	n.a.
Jamaica—						
Unmanufactured ..	182	539	838	870	n.a.	n.a.
Manufactured .. ..	159	285	272	647	n.a.	n.a.
Cement products ..	1,952	363	91	356	n.a.	n.a.
St. Vincent—						
Cement products ..	7	11	9	n.a.	n.a.	n.a.
Trinidad and Tobago—						
Cement products ..	706	99	291	305	375	381
Other manufactures ..	1,880	638	103	132	184	187
Guyana—						
Cement products ..	453	915	1,036	2,176	2,163	2,198
Other manufactures ..		314	556	112	142	144
Brunei—						
Cement products ..	1,227	865	3,009	3,027	n.a.	n.a.
Ceylon—						
Unmanufactured ..	—	1,766	830	6,735	n.a.	n.a.
Cement sheets, etc. ..	6	91	28	338	n.a.	n.a.
Other manufactures ..	4,352	1,820	4,134	1,295	n.a.	n.a.
Cyprus—						
Sheets and pipes ..	4,336	6,458	4,525	12,077	7,006	7,118
Other manufactures ..	(£47,711)	(£50,049)	(£55,562)	(£65,127)	(£80,620)	(£80,620)

(a) Including cement products.

## IMPORTS OF ASBESTOS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Hong Kong—						
Unmanufactured ..	362	144	266	215	89	90
Manufactured ..	(£100,887)	(£130,598)	(£166,893)	(£209,600)	(£226,570)	(£226,570)
Cement products ..	5,903	5,186	9,536	9,227	10,188	10,352
India—						
Unmanufactured ..	29,482	29,315	26,251	33,078	39,138	39,766
Manufactured (b) ..	768	547	353	383	736	747
Cement products (b) ..	83	132	115	60	118	120
Malaysia (West)—						
Unmanufactured ..	8,837	10,922	10,190	8,647	14,095	14,321
Cement products ..	11,836	4,441	1,063	1,335	2,293	2,330
Other manufactures ..	678	1,456	330	347	498	506
Sabah—						
Manufactured ..	18	13	29	11	21	21
Cement products ..	2,976	3,328	4,066	4,567	3,932	3,995
Sarawak—						
Cement products ..	5,159	4,425	6,058	n.a.	n.a.	n.a.
Other manufactures ..	13	15	41	n.a.	n.a.	n.a.
Singapore—						
Unmanufactured ..	3,617	4,367	3,020	1,147	3,100	3,150
Cement products ..	3,963	3,821	4,062	7,765	11,145	11,324
Other manufactures ..	1,012	1,631	1,244	1,560	3,660	3,718
Australia—						
Unmanufactured ..	49,243	46,950	59,590	52,739	67,521	68,605
Manufactured (a) ..	(£681,000)	(£873,200)	(£910,274)	(£983,000)	(£1,163,843)	(£1,163,843)
New Zealand (a)—						
Unmanufactured ..	7,618	7,950	5,851	5,757	8,519	8,656
Manufactured £	(369,774)	(371,704)	(482,911)	(322,386)	n.a.	n.a.
Cement products £	(7,405)	(12,459)	(5,797)	(4,625)	n.a.	n.a.
Irish Republic—						
Unmanufactured	5,938	4,806	3,955	6,392	4,991	5,071
Manufactured	1,297	1,172	1,397	3,026	5,588	5,677
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured ..	33,629	17,199	31,245	33,810	33,616	34,155
Manufactured (c) ..	830	713	742	1,303	1,055	1,072
Cement products (d) ..	12,899	9,902	6,854	5,451	5,247	5,331
Belgium-Luxemburg						
E.U.—						
Unmanufactured ..	51,685	54,893	60,150	63,700	53,973	54,839
Manufactured (c) ..	2,680	2,656	2,332	3,163	5,248	5,332
Cement products (d) ..	2,035	2,692	3,712	5,651	7,088	7,202
Czechoslovakia—						
Unmanufactured ..	32,475	32,538	36,323	28,767	38,400	39,017
Denmark—						
Unmanufactured ..	20,440	23,122	24,727	24,535	28,237	28,690
Manufactured (c) ..	1,931	1,540	1,916	2,664	2,148	2,182
Cement products (d) ..	2,233	8,617	1,571	8,100	3,663	3,722
Finland—						
Unmanufactured ..	6,292	6,329	4,468	4,652	7,622	7,744
Manufactured ..	749	1,362	1,499	2,255	2,401	2,440
France—						
Unmanufactured ..	122,476	124,741	126,583	133,003	149,450	151,848
Manufactured (c) ..	3,138	2,967	3,213	5,538	5,518	5,607
Cement products (d) ..	57,054	120,298	130,965	113,406	111,062	112,844

(a) Years ended June 30 of that stated.

(d) Including manufactures of other fibro-cements.

(b) Years ended March 31 following that stated.

(c) Including brake and clutch linings of material other than asbestos.



## IMPORTS OF ASBESTOS (cont.)

Importing Country and Description						Long tons	Tonnes
	1966	1967	1968	1969	1970	1970	
<b>OTHER COUNTRIES</b> (cont.)							
<b>Germany (Federal)—</b>							
Unmanufactured ..	166,738	123,812	185,140	162,127	172,838	175,612	
Manufactured (a) ..	8,181	6,572	10,029	12,788	13,918	14,141	
Cement products (b) ..	104,517	88,551	105,325	106,426	105,255	106,944	
<b>Germany (East)—</b>							
Unmanufactured ..	26,415	37,734	36,491	45,657	51,193	52,015	
<b>Greece—</b>							
Unmanufactured ..	3,849	5,427	8,331	11,430	17,530	17,811	
Manufactured (a) (c) ..	3,806	5,009	6,613	3,104	1,496	1,520	
<b>Hungary—</b>							
Unmanufactured ..	14,449	13,891	n.a.	n.a.	14,995	15,236	
<b>Iceland—</b>							
Unmanufactured ..	15	7	11	7	1,012	1,028	
Manufactured ..	148	205	176	283	95	97	
<b>Italy—</b>							
Unmanufactured ..	42,931	44,712	50,463	57,257	61,270	62,253	
Manufactured (a) ..	4,029	4,288	2,312	5,933	7,377	7,495	
Cement products (b) ..	13,878	11,074	9,945	19,810	12,117	12,311	
<b>Netherlands—</b>							
Unmanufactured ..	16,759	17,802	22,939	20,327	19,746	20,063	
Manufactured (a) ..	5,251	4,922	6,407	5,475	6,556	6,661	
Cement products (b) ..	101,914	92,732	97,056	115,427	128,721	130,787	
<b>Norway—</b>							
Unmanufactured ..	5,492	5,593	4,650	6,835	7,856	7,982	
Manufactured (a) ..	1,887	2,167	2,029	2,215	3,056	3,105	
Cement products (b) ..	13,778	14,862	15,330	19,686	23,465	23,842	
<b>Poland—</b>							
Unmanufactured ..	41,691	41,959	41,574	56,153	63,368	64,385	
<b>Portugal—</b>							
Unmanufactured ..	4,032	4,233	4,201	3,418	6,406	6,509	
Manufactured (a) ..	516	568	586	856	1,465	1,489	
<b>Spain—</b>							
Unmanufactured ..	74,328	46,750	61,779	84,096	76,450	77,677	
Manufactured (a) (b) ..	2,813	2,426	2,148	1,964	2,498	2,538	
<b>Sweden—</b>							
Unmanufactured ..	19,288	13,320	18,435	15,848	18,533	18,830	
Manufactured (a) ..	4,257	4,067	3,995	4,947	5,250	5,334	
Cement products ..	7,546	10,399	11,675	10,141	9,161	9,308	
<b>Switzerland—</b>							
Unmanufactured ..	15,523	12,511	14,762	15,465	17,441	17,721	
Manufactured (a) ..	2,399	2,379	2,629	2,985	3,078	3,127	
Cement products (b) ..	2,030	1,932	1,168	1,324	3,536	3,593	
<b>Yugoslavia—</b>							
Unmanufactured ..	13,165	18,349	16,855	26,044	28,101	28,552	
Manufactured ..	617	633	1,730	1,130	875	889	
Cement products ..	6,883	12,196	2,617	7,804	41,943	42,616	
<b>Algeria—</b>							
Unmanufactured ..	1,020	1,797	1,440	3,659	n.a.	n.a.	
<b>Angola—</b>							
Unmanufactured ..	1,330	1,425	549	398	1,059	1,076	
Manufactured (a) ..	284	154	130	170	169	172	
<b>Egypt—</b>							
Unmanufactured ..	6,709	5,440	3,896	n.a.	6,505	6,609	
Manufactured ..	560	276	222	387	630	640	
<b>Libya—</b>							
Unmanufactured ..	27	28	58	435	n.a.	n.a.	
Manufactured ..	72	53	65	187	n.a.	n.a.	

(a) Including brake and clutch linings of material other than asbestos.

(b) Including manufactures of other fibro-cements.

(c) Including cement products.

## IMPORTS OF ASBESTOS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Malagasy Republic—						
Manufactured (a) ..	55	89	91	114	128	130
Cement products ..	637	670	1,254	1,764	1,313	1,334
Morocco—						
Unmanufactured ..	2,455	2,104	2,188	2,505	3,495	3,551
Manufactured (a) ..	150	187	52	223	238	242
Cement products ..	1	2	1	—	—	—
Mozambique—						
Unmanufactured ..	992	1,053	501	193	741	753
Manufactured ..	58	71	66	69	106	108
South Africa—						
Unmanufactured ..	11,128	13,772	12,920	15,154	16,920	17,191
Packing ..	(d)	(d)	(d)	(d)	(d)	(d)
Cement products ..	845	595	326	531	977	993
Other manufactures ..	(£832,609)	(£1,006,158)	(£1,014,549)	(£659,620)	(£869,180)	(£869,180)
Sudan—						
Manufactured ..	n.a.	3	1,195	2,599	296	301
Tunisia—						
Unmanufactured ..	2,934	2,131	1,068	1,959	1,738	1,766
Manufactured (a) ..	146	96	93	63	134	136
Cement products (b) ..	3,475	628	1,395	2,506	n.a.	n.a.
Costa Rica—						
Unmanufactured ..	n.a.	n.a.	293	450	724	736
Manufactured ..	125	163	74	102	115	117
Guatemala—						
Unmanufactured ..	545	541	361	897	450	457
Manufactured (c) ..	297	157	189	376	220	224
Honduras—						
Manufactured ..	61	64	117	122	—	—
Mexico—						
Unmanufactured ..	25,123	30,085	33,274	36,237	39,821	40,460
Manufactured ..	646	318	245	109	675	686
Netherlands Antilles—						
Manufactured ..	145	217	247	223	n.a.	n.a.
Cement sheets ..	2,741	2,084	2,748	n.a.	n.a.	n.a.
Nicaragua—						
Manufactured ..	69	56	64	75	59	60
Panama Republic—						
Cement products ..	5	5	1,003	n.a.	n.a.	n.a.
Salvador—						
Unmanufactured ..	1,222	679	1,003	742	948	963
Manufactured ..	152	6	33	29	24	24
United States—						
Unmanufactured—						
Crude ..	78,806	33,600	34,124	29,300	21,488	21,833
Mill fibre ..	15,783	14,270	15,255	14,262	15,343	15,589
Other ..	576,422	528,123	609,469	576,578	542,992	551,705
Manufactured ..	32,756	26,630	40,443	44,735	37,441	38,042
Argentina—						
Unmanufactured and manufactured ..	13,655	14,251	16,721	106	422	429
Brazil—						
Unmanufactured ..	18,648	17,227	27,150	20,376	23,043	23,413
Manufactured ..	659	383	726	965	990	1,006
Chile—						
Unmanufactured ..	7,324	8,853	8,520	n.a.	n.a.	n.a.
Manufactured ..	n.a.	352	418	n.a.	n.a.	n.a.

(a) Including brake and clutch linings of material other than asbestos.

(b) Including manufactures of other fibro-cements.

(c) Including cement products.

(d) Included with "other manufactures".

## IMPORTS OF ASBESTOS (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Colombia—						
Unmanufactured ..	16,033	13,535	13,870	n.a.	n.a.	n.a.
Manufactured ..	708	383	355	n.a.	n.a.	n.a.
Cement products ..	1	—	5	n.a.	n.a.	n.a.
Ecuador—						
Unmanufactured ..	369	613	n.a.	n.a.	n.a.	n.a.
Manufactured ..	326	237	n.a.	n.a.	n.a.	n.a.
Peru—						
Unmanufactured ..	3,477	4,098	3,875	2,652	n.a.	n.a.
Manufactured ..	355	405	358	430	n.a.	n.a.
Uruguay ..	1,360	1,077	1,145	766	1,964	1,996
Venezuela—						
Unmanufactured ..	5,233	4,932	5,575	4,599	n.a.	n.a.
Manufactured ..	430	388	388	974	n.a.	n.a.
Cement products ..	9,246	18,379	4,553	1,960	n.a.	n.a.
Burma—						
Unmanufactured ..	452	1	1,418	n.a.	n.a.	n.a.
Cement products ..	—	4	—	n.a.	n.a.	n.a.
Formosa—						
Unmanufactured ..	2,329	2,277	3,298	5,855	6,485	6,589
Manufactured ..	428	392	400	539	742	754
Iran (a)—						
Unmanufactured ..	4,611	5,713	5,821	6,601	11,020	11,197
Manufactured ..	348	431	490	549	477	485
Cement products ..	1,022	394	623	340	201	204
Iraq—						
Unmanufactured ..	503	595	1,165	2,728	2,000	2,000
Manufactured ..	168	179	249	305	486	494
Cement products ..	12	226	336	660	n.a.	n.a.
Israel—						
Unmanufactured ..	5,759	4,202	8,220	8,450	7,469	7,589
Japan—						
Unmanufactured ..	233,586	185,760	196,266	233,427	293,543	298,253
Manufactured ..	1,294	1,141	786	1,220	1,408	1,431
Cement products ..	972	228	240	365	576	585
Jordan—						
Manufactured ..	552	929	2,264	4,913	858	871
Korea (South)—						
Unmanufactured ..	11,880	21,685	24,816	27,196	34,735	35,292
Lebanon—						
Unmanufactured ..	4,445	4,944	6,542	5,928	6,317	6,418
Manufactured ..	181	156	197	345	280	284
Cement products ..	373	78	21	200	255	259
Philippine Republic—						
Unmanufactured ..	n.a.	1,808	1,101	n.a.	n.a.	n.a.
Manufactured ..	n.a.	118	135	n.a.	n.a.	n.a.
Cement products ..	n.a.	16	n.a.	n.a.	n.a.	n.a.
Syria—						
Cement sheets ..	4,862	4,111	2,236	2,545	742	754
Other manufactures ..	148	100	286	316	132	134
Thailand—						
Unmanufactured ..	16,333	20,132	18,578	23,402	20,936	21,272
Manufactured ..	862	859	804	779	2,212	2,247
Cement products ..	8,077	2,752	2,671	2,851	818	831
Turkey—						
Unmanufactured ..	6,567	5,791	8,180	9,913	n.a.	n.a.
Manufactured ..	501	648	257	296	n.a.	n.a.
Cement products ..	95	14	5	41	n.a.	n.a.

(a) Years ended March 20 following that stated.

## BARIUM MINERALS

### PRODUCTION OF BARIUM MINERALS\*

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Barytes, unground ..	6,000	4,000	1,000	1,000	—	—
do. ground ..	26,000	26,000	25,000	16,000	(a) 20,000	(a) 20,000
Witherite .. ..	5,000	6,000	5,000	2,000	—	—
Kenya .. ..	96	209	345	428	440	447
Swaziland .. ..	1,027	556	876	561	333	338
Canada .. ..	197,657	153,812	123,267	127,884	117,247	119,129
India .. ..	51,777	52,179	50,900	64,444	70,787	71,923
Pakistan .. ..	7,700	6,218	10,193	4,900	5,900	6,000
Australia .. ..	13,726	15,666	39,197	39,562	42,137	42,813
Irish Republic .. ..	122,000	69,610	133,080	157,970	(a) 157,000	(a) 160,000
<b>OTHER COUNTRIES</b>						
Austria .. ..	2,756	2,389	1,437	696	310	315
France .. ..	97,556	100,386	89,562	93,500	103,300	105,000
Germany (Federal) ..	444,124	403,187	424,637	435,529	409,446	416,016
Greece .. ..	146,900	146,000	185,030	232,200	(c) 135,000	(c) 137,000
Italy .. ..	172,356	151,633	200,758	238,087	219,538	223,061
Poland (c) .. ..	46,000	46,000	46,000	49,000	49,000	50,000
Portugal .. ..	1,000	311	315	106	1,063	1,080
Spain .. ..	79,053	49,337	63,984	67,502	(c) 62,500	(c) 63,500
U.S.S.R. (c) .. ..	220,000	260,000	260,000	276,000	295,000	299,000
Yugoslavia .. ..	78,923	83,144	69,323	(c) 70,000	(c) 78,500	(c) 79,800
Algeria .. ..	(a) 35,000	30,904	44,275	50,896	50,827	51,643
Egypt .. ..	6,692	1,262	367	(c) 400	(c) 400	(c) 400
Morocco .. ..	104,577	89,088	76,926	85,567	83,411	84,750
South Africa .. ..	6,085	1,470	511	3,457	2,856	2,902
Mexico .. ..	286,979	219,754	242,645	174,127	314,052	319,089
United States .. ..	899,076	842,930	827,437	961,793	762,613	774,850
Argentina .. ..	17,703	21,704	23,813	26,563	(c) 27,000	(c) 27,000
Brazil .. ..	64,262	84,647	42,385	46,200	(c) 25,000	(c) 25,000
Chile .. ..	2,006	4,430	3,920	7,879	4,250	4,318
Colombia .. ..	(c) 8,800	5,900	6,889	12,242	6,713	6,821
Peru .. ..	170,732	183,653	33,370	146,488	127,942	129,994
Burma (c) .. ..	n.a.	9,300	9,400	9,550	10,800	11,000
China (c) .. ..	120,000	100,000	118,000	137,000	147,000	149,000
Iran (b) .. ..	(c) 83,000	(c) 89,000	(c) 52,500	(c) 57,700	(c) 59,300	(e) 60,200
Japan .. ..	39,638	36,979	54,534	61,304	65,134	66,176
Korea (South) .. ..	19	—	5	n.a.	n.a.	n.a.
Korea (North) (c) ..	80,000	100,000	100,000	100,000	100,000	100,000
Turkey .. ..	16,307	31,713	19,645	29,263	28,583	29,042
<b>TOTAL†</b> .. ..	<b>3,500,000</b>	<b>3,300,000</b>	<b>3,500,000</b>	<b>3,600,000</b>	<b>3,400,000</b>	<b>3,500,000</b>

\*Barytes unless otherwise stated.

†Excluding barytes known to have been produced in Bulgaria, Czechoslovakia, Germany (East) and Norway.

(a) Estimated.

(b) Years ended March 20 of year following that stated.

(c) United States Bureau of Mines' estimate.

## EXPORTS OF BARIUM MINERALS, ETC.\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
Canada—						
Barytes .. .. .	177,727	130,449	104,010	96,973	88,879	90,305
India—						
Unground barytes ..	2,718	6,503	2,819	13,542	20,160	20,484
Pakistan (a)—						
Barytes .. .. .	<i>n.a.</i>	2,811	3,920	2,712	4,475	4,547
Australia—						
Ground barytes ..	4,797	4,174	19,564	23,995	29,705	30,182
Irish Republic—						
Unground barytes ..	127,827	73,584	140,006	153,964	218,634	222,143
OTHER COUNTRIES						
Austria—						
Barytes .. .. .	1	60	—	69	—	—
Belgium-Luxemburg						
E.U.—						
Barytes and witherite ..	133	45	62	91	167	170
Barytes, ground ..						
Sulphate .. .. .	77	79	10	44	60	61
Carbonate .. .. .	—	—	—	—	25	25
Chloride .. .. .	—	—	27	1	25	25
France—						
Barytes .. .. .	12,695	17,848	14,821	14,165	18,753	19,054
Witherite .. .. .	3	21	3	23	—	—
Chloride .. .. .	10,079	11,449	10,006	14,896	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	1,200	1,566	6,704	3,338	1,813	1,842
Sulphate .. .. .	1,899	2,619	2,778	5,089	8,269	8,402
Germany (Federal)—						
Barytes and witherite ..	112,746	107,209	118,712	115,551	109,923	111,687
Carbonate .. .. .	29,132	27,570	26,700	33,651	38,792	39,415
Sulphate .. .. .	18,839	21,726	23,336	23,981	22,492	22,853
Greece—						
Barytes .. .. .	47,552	61,855	64,816	73,194	46,088	46,828
Italy—						
Barytes .. .. .	17,323	40,256	30,794	51,737	52,607	53,451
Witherite .. .. .	73	—	198	25	240	244
Carbonate .. .. .	2,015	1,096	6,522	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	4,739	6,065	5,351	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	290	119	314	563	637	647
Netherlands—						
Barytes .. .. .	1,161	1,696	444	1,831	258	262
Carbonate .. .. .	706	109	168	218	458	465
Chloride .. .. .	184	64	49	49	61	62
Sulphate .. .. .	2,605	2,633	3,002	2,731	2,327	2,364
Poland—						
Barytes .. .. .	189	—	—	—	—	—
Portugal—						
Barytes .. .. .	979	6	10	—	10	10
Spain—						
Barytes .. .. .	48,265	22,787	49,358	40,966	47,693	48,458
Carbonate .. .. .	280	177	153	123	10	10
Yugoslavia—						
Unground barytes ..	31,164	29,771	35,354	39,530	23,768	24,149
Ground barytes ..	15,963	14,547	15,917	12,560	18,311	18,605
Algeria—						
Barytes .. .. .	9,350	28,739	7,871	9,350	<i>n.a.</i>	<i>n.a.</i>

\*For Lithopone, see "Zinc".

(a) Years ended June 30th of that stated.

## EXPORTS OF BARIUM MINERALS, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Morocco—						
Barytes .. .. .	96,750	87,708	80,298	85,559	69,674	70,792
South Africa—						
Barytes .. .. .	—	—	—	4	—	—
Mexico—						
Barytes .. .. .	188,535	117,280	97,790	111,707	115,496	117,349
Argentina—						
Barytes .. .. .	229	10	1,243	98	162	165
Brazil—						
Barytes .. .. .	47,998	48,293	12,098	18,003	18,052	18,342
Peru—						
Barytes .. .. .	23,276	66,374	85,007	105,134	n.a.	n.a.
Japan—						
Barytes .. .. .	1,198	1,636	2,897	3,447	n.a.	n.a.
Chloride .. .. .	1,652	1,809	1,787	355	279	283
Sulphate .. .. .	77	291	405	516	592	601
Turkey—						
Barytes .. .. .	1,162	270	16,419	25,074	n.a.	n.a.

## IMPORTS OF BARIUM MINERALS, ETC.\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unground barytes ..	47,100	30,647	17,874	30,762	53,281	54,136
Ground barytes ..	9,790	20,208	14,910	24,839	11,346	11,528
Chloride (c) ..	<i>n.a.</i>	<i>n.a.</i>	2,907	3,138	4,353	4,423
Sulphate (c) ..	<i>n.a.</i>	<i>n.a.</i>	6,537	5,688	5,702	5,793
Canada—						
Barytes ..	3,719	5,289	7,054	5,574	6,719	6,827
Carbonate ..	3,235	3,528	3,121	3,575	3,212	3,264
Trinidad and Tobago—						
Barytes ..	50,358	44,106	14,646	(d) 176	6,900	7,010
India (a)—						
Barytes ..	—	9	—	—	—	—
Carbonate ..	9	11	5	12	12	12
Chloride ..	1	23	—	—	—	—
Sulphate ..	135	198	125	10	29	29
Australia (b)—						
Witherite ..	79	78	75	—	34	35
Barytes ground ..	319	299	869	1,571	299	304
Barytes unground ..	1,108	1,169	749	—	1,825	1,854
Carbonate ..	598	920	946	1,037	1,182	1,201
Chloride ..	691	1,564	1,548	1,333	766	778
Sulphate incl. blanc fixe ..	282	297	610	344	386	392
New Zealand (b)—						
Barytes and witherite ..	1,000	2,267	859	1,553	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
Barytes and witherite ..	5,860	7,280	5,633	8,326	8,084	8,214
Carbonate ..	857	1,128	947	976	810	823
Chloride ..	330	286	360	364	430	437
Sulphate ..	404	442	558	435	486	494
Belgium-Luxemburg						
E.U.—						
Barytes and witherite ..	14,677	5,888	5,978	6,005	6,362	6,464
Barytes, ground ..						
Sulphate ..						
Carbonate ..						
Chloride ..	898	1,022	630	1,616	1,526	1,551
Chloride ..	1,923	1,792	1,999	2,410	3,038	3,087
Denmark—						
Barytes ..	1,122	1,912	922	1,107	834	847
Carbonate ..	533	556	476	545	671	682
Chloride ..	201	228	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate ..	1,514	210	299	206	203	206
Finland—						
Barytes ..	508	636	482	484	518	526
Witherite ..						
Chloride ..						
Carbonate ..						
Sulphate ..	160	143	302	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carbonate ..	679	719	1,033	1,020	1,614	1,640
Sulphate ..	1,616	1,282	2,067	1,710	1,310	1,331
France—						
Barytes ..	81,625	87,278	79,242	78,072	86,031	87,412
Witherite ..	2	9	23	24	2	2
Chloride ..	2	947	315	—	—	—
Carbonate ..	415	823	110	73	498	506
Sulphate ..	1,357	1,681	2,102	2,045	1,859	1,889

\*For Lithopone, see "Zinc".

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

(c) Not recorded as a separate import item prior to 1968.

(d) Excess of re-exports.

## IMPORTS OF BARIUM MINERALS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Germany (Federal)—</b>						
Barytes and witherite ..	29,364	38,660	43,398	59,589	95,861	97,399
Carbonate .. ..	3,648	3,081	3,254	7,050	7,453	7,573
Sulphate .. ..	307	446	2,362	2,945	3,073	3,122
<b>Greece—</b>						
Sulphate .. ..	330	367	328	388	340	346
<b>Iceland—</b>						
Sulphate .. ..	43	59	73	131	196	199
<b>Italy—</b>						
Barytes .. ..	40,328	6,552	11,078	5,745	24,355	24,746
Witherite .. ..	—	22	42	—	3	3
Carbonate .. ..	79	49	878	730	538	547
Chloride .. ..	71	1	—	14	—	—
Sulphate .. ..	1,623	1,662	1,874	1,777	1,145	1,163
<b>Netherlands—</b>						
Barytes and witherite ..	} 27,853	} 20,819	} 29,600	} 34,024	} 26,164	} 26,584
Barytes, ground .. ..						
Carbonate .. ..						
Chloride .. ..						
Sulphate .. ..						
<b>Norway—</b>						
Barytes .. ..	1,887	1,168	16,069	16,046	20,466	20,795
Carbonate .. ..	484	563	539	705	915	930
Chloride .. ..	321	308	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	76	107	209	139	129	131
<b>Poland—</b>						
Barytes .. ..	9,729	26,082	12,196	16,874	24,975	25,376
<b>Portugal—</b>						
Barytes .. ..	231	293	205	294	237	241
Chloride .. ..	6	3	—	197	362	368
Sulphate .. ..	176	108	149	164	122	124
<b>Spain—</b>						
Barytes .. ..	494	341	670	932	884	898
Sulphate .. ..	218	331	795	1,288	1,484	1,508
<b>Sweden—</b>						
Barytes and witherite ..	1,457	1,660	1,265	1,547	2,066	2,099
Carbonate .. ..	3,118	3,017	3,824	3,838	3,358	3,412
Chloride .. ..	280	497	534	383	553	562
Sulphate .. ..	2,399	2,790	2,822	3,372	3,160	3,211
<b>Switzerland—</b>						
Barytes .. ..	3,325	2,214	1,797	1,741	2,565	2,606
Sulphate .. ..	1,825	1,617	1,636	2,202	2,072	2,105
<b>U.S.S.R.—</b>						
Barytes .. ..	139,500	140,839	176,960	140,400	149,304	151,700
<b>Malagasy Republic—</b>						
Barytes and witherite ..	—	5	146	—	11	11
<b>South Africa—</b>						
Barytes .. ..	3,005	2,826	3,424	4,317	1,730	1,758
<b>Tunisia—</b>						
Barytes .. ..	1,172	2,845	2,135	2,543	2,800	2,845
<b>Mexico—</b>						
Barytes .. ..	445	454	464	45	94	96
Witherite .. ..	363	279	343	54	—	—
Carbonate .. ..	877	484	281	392	289	294
Chloride .. ..	599	371	414	552	997	1,013
<b>United States—</b>						
Unground barytes ..	624,111	475,188	591,701	548,209	630,358	640,473
Ground barytes ..	—	—	—	2,000	1,000	1,000
Witherite .. ..	1,909	1,125	1,812	408	162	165
Carbonate .. ..	1,027	726	586	791	1,265	1,285
Chloride .. ..	1,104	874	1,262	966	1,391	1,413
Sulphate .. ..	2,415	2,008	2,485	2,415	2,559	2,600



## IMPORTS OF BARIUM MINERALS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Argentina—						
Barytes .. .. .	62	—	—	117	39	40
Sulphate .. .. .	142	204	202	254	212	215
Barium compounds ..	6	19	69	13	28	28
Brazil—						
Barytes .. .. .	45	7	83	25	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	2,140	3,598	3,427	3,407	3,745	3,805
Chloride .. .. .	1,051	863	749	1,196	206	209
Sulphate .. .. .	340	295	707	591	541	550
Chile—						
Barytes .. .. .	<i>n.a.</i>	1,357	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	<i>n.a.</i>	31	139	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	<i>n.a.</i>	35	48	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Carbonate .. .. .	176	273	334	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	54	42	37	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	42	105	48	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador—						
Sulphate .. .. .	760	23	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Barytes and witherite ..	96	<i>n.a.</i>	199	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	96	279	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	36	90	18	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	35	27	20	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Sulphate .. .. .	32	10	3	17	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Barytes .. .. .	12,009	8,040	14,693	12,410	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	35	62	54	43	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	56	263	141	204	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	79	171	208	163	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Carbonate .. .. .	98	178	238	337	374	380
Chloride .. .. .	64	158	203	47	230	234
Iraq—						
Barytes .. .. .	—	64	1,990	10	152	154
Israel—						
Barytes .. .. .	518	991	750	4,042	3,340	3,394
Japan—						
Barytes .. .. .	38,552	33,259	6,023	29,000	28,489	28,946
Lebanon—						
Barytes and witherite ..	7	31	49	20	20	20
Syria—						
Barytes and witherite ..	30	492	15	522	2,047	2,080
Turkey—						
Barytes .. .. .	730	—	—	292	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	123	86	99	168	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	270	133	178	156	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	94	—	—	—	<i>n.a.</i>	<i>n.a.</i>

**BENTONITE**  
(see also Fuller's Earth)  
**PRODUCTION OF BENTONITE**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Tanzania .. ..	50	200	—	—	—	—
Cyprus (a) .. ..	2,658	4,539	9,069	9,036	12,894	13,101
Australia—						
Bentonite .. ..	159	95	100	95	100	102
Bentonitic clay .. ..	667	262	203	361	252	256
New Zealand .. ..	2,416	3,053	3,113	5,630	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,660	945	502	—	—	—
Greece .. .. .	89,096	122,042	134,584	196,800	185,697	188,677
Hungary .. .. .	90,000	83,000	59,000	56,000	(b) 74,000	(b) 75,000
Italy .. .. .	r 207,977	240,723	252,529	206,681	315,789	320,856
Spain .. .. .	23,593	16,167	26,652	34,405	<i>n.a.</i>	<i>n.a.</i>
Mozambique .. ..	3,805	3,853	2,614	2,578	5,406	5,493
South Africa .. ..	11,716	14,922	12,452	14,274	16,439	16,703
United States (c) ..	1,839,836	1,823,965	2,176,362	2,140,000	2,200,000	2,200,000
Argentina .. .. .	41,959	41,788	45,915	61,158	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	22,220	2,807	r 12,614	25,508	<i>n.a.</i>	<i>n.a.</i>
Turkey .. .. .	(b) 2,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

Bentonite is also produced in Canada, France, Germany, Algeria, Morocco, and Japan.

(a) Exports of bentonitic clay.

(c) Sold or used by producers.

(b) Estimated.

**EXPORTS OF BENTONITE**

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Tanzania .. ..	50	130	27	—	—	—
Cyprus (a) .. ..	2,658	4,539	9,069	9,036	12,894	13,101
India .. ..	302	400	958	1,693	1,438	1,461
<b>OTHER COUNTRIES</b>						
Austria .. ..	59	53	10	1	—	—
Germany (Federal) ..	1,008	11,401	17,634	29,207	34,983	35,544
Italy .. ..	28,869	26,547	30,598	15,498	12,765	12,970
Spain .. ..	1,695	3,228	2,840	5,674	4,966	5,046
Sweden .. ..	35	52	120	270	14	14
Yugoslavia .. ..	13,483	25,819	23,371	21,982	21,249	21,590
Algeria .. ..	<i>n.a.</i>	12,280	17,102	2,065	<i>n.a.</i>	<i>n.a.</i>
Morocco .. ..	110	155	123	734	525	533
South Africa .. ..	17,726	1,237	2,158	1,303	1,960	1,991
United States .. ..	270,354	284,512	426,182	447,702	443,052	450,162
Argentina .. ..	6,340	5,265	10,306	7,642	6,035	6,132

(a) Bentonitic clay.

**IMPORTS OF BENTONITE**

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (b) ..	<i>n.a.</i>	31,444	33,219	46,592	48,239	49,013
Canada .. ..	171,617	196,305	274,732	262,475	307,280	312,211
India .. ..	77	6	11	10	6	6
Australia (a) .. ..	15,104	20,927	43,810	58,155	65,434	66,484
<b>OTHER COUNTRIES</b>						
Austria .. ..	16,523	2,766	323	498	524	532
Germany (Federal) ..	5,931	21,547	22,377	39,520	72,809	73,977
Italy .. ..	2,615	7,415	9,798	9,817	14,211	14,439
Poland .. ..	3,785	4,166	4,804	5,323	7,308	7,425
Portugal .. ..	2,024	1,538	2,596	3,073	4,559	4,632
Spain .. ..	14,963	15,206	14,873	18,792	20,812	21,146
Sweden .. ..	5,423	4,416	8,022	5,340	7,672	7,795
Morocco .. ..	<i>n.a.</i>	—	70	—	—	—
United States .. ..	131	110	130	68	163	166
Brazil .. ..	8,482	5,410	7,808	9,682	9,754	9,911
Chile .. ..	2,594	3,108	8,802	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. ..	3,034	1,383	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador .. ..	459	130	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. ..	793	<i>n.a.</i>	1,260	432	<i>n.a.</i>	<i>n.a.</i>
Uruguay .. ..	52	31	18	31	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. ..	3,462	4,337	8,282	6,734	<i>n.a.</i>	<i>n.a.</i>
Turkey (b) .. ..	<i>n.a.</i>	968	2,054	856	<i>n.a.</i>	<i>n.a.</i>

(a) Including bentonitic clay.

(b) Not recorded separately prior to 1967.

**BERYL**  
**PRODUCTION OF BERYL**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	—	17	11	3	4	4
Uganda .. .. .	278	307	355	282	255	259
India (a) .. .. .	446	4,828	<i>n.a.</i>	<i>n.a.</i>	—	—
Australia .. .. .	52	55	15	7	18	18
<b>OTHER COUNTRIES</b>						
Portugal .. .. .	12	14	126	28	14	14
Congo (Kinshasa) .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	143	128	130
Malagasy Republic .. .. .	12	29	78	74	51	52
Mozambique .. .. .	79	166	93	120	32	33
Rwanda and Burundi .. .. .	131	107	28	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	21	103	304	308	317	322
South West Africa .. .. .	21	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Argentina .. .. .	251	264	584	510	509	517
Brazil .. .. .	418	408	732	204	700	700
<b>TOTAL* .. .. .</b>	<b>3,500</b>	<b>3,000</b>	<b>3,000</b>	<b>4,000</b>	<b>3,500</b>	<b>3,600</b>

\*Excluding beryl known to have been produced in the United States and U.S.S.R.

(a) Imports into the United States.

**EXPORTS OF BERYL**

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Uganda .. .. .	222	310	475	314	250	254
India (a) .. .. .	446	4,828	—	—	—	—
Australia .. .. .	37	637	135	9	46	47
<b>OTHER COUNTRIES</b>						
Italy .. .. .	325	908	—	—	—	—
Portugal .. .. .	10	28	51	58	14	14
Malagasy Republic .. .. .	6	24	56	75	30	30
Mozambique .. .. .	81	188	102	85	26	26
South Africa .. .. .	31	62	318	316	336	341
South West Africa .. .. .	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States .. .. .	27	34	42	13	19	19
Argentina .. .. .	244	262	561	518	49	50
Brazil .. .. .	695	1,289	2,045	3,539	3,280	3,333

(a) Imports into the United States.

**IMPORTS OF BERYL\***

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
France .. .. .	402	—	—	<i>n.a.</i>	300	305
United States .. .. .	1,917	8,492	3,415	5,736	4,412	4,483

\*Imports of Beryl are not recorded separately in the trade returns of most countries.

**BISMUTH**  
**PRODUCTION OF BISMUTH ORE, ETC.\***

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada—						
Metal plus content of bullion and concentrates exported ..	235	298	289	259	255	259
Australia—						
Concentrates (Bi content) .. .. .	—	11	180	197	198	201
<b>OTHER COUNTRIES</b>						
France—						
Mispickel ( <i>Bi content</i> ) ..	62	55	63	68	64	65
Spain—						
Ore ( <i>Bi content</i> ) ..	9	4	6	12	—	—
Sweden—						
Metal ( <i>c</i> ) .. .. .	34	30	19	14	14	14
Yugoslavia—						
Metal .. .. .	102	106	84	101	74	75
Mozambique—						
Ore ( <i>Bi content</i> ) ..	<i>n.a.</i>	2	2	3	1	1
South Africa—						
Ore ( <i>Bi content</i> ) ..	—	—	2	—	—	—
Mexico—						
Ore ( <i>Bi content</i> ) ..	447	501	516	597	580	589
Bolivia ( <i>b</i> )—						
Ore, etc. ( <i>Bi content</i> ) ..	367	523	600	656	615	625
Peru—						
Concentrates ( <i>a</i> )						
( <i>Bi content</i> ) .. .. .	21	33	17	28		
Lead bars						
( <i>Bi content</i> ) .. .. .	80	62	38	51		
Metal .. .. .	655	700	742	590	751	763
Korea (South)—						
Ore ( <i>Bi content</i> ) ..	94	107	101	108	103	105

\*Bismuth ore has also been produced in Germany, Roumania, Burma and China and the metal recovered as a by-product in the United Kingdom, U.S.S.R., United States and Japan.

(a) Recoverable.

(b) Exports.

(c) United States Bureau of Mines' estimate.

EXPORTS OF BISMUTH, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bismuth .. .. .	325	379	303	352	311	316
Bismuth salts .. .. .	48	46	44	41	33	34
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bismuth (a) .. .. .	115	60	156	189	336	341
France—						
Bismuth (a) .. .. .	70	82	59	71	81	82
Germany (Federal)—						
Bismuth .. .. .	98	125	80	111	232	236
Netherlands—						
Bismuth (a) .. .. .	225	211	146	85	93	94
Bismuth salts .. .. .	45	6	49	93	79	80
Yugoslavia—						
Bismuth .. .. .	46	64	44	54	46	47
Mexico—						
Bismuth, refined .. .. .	271	216	229	358	296	301
do. impure bars .. .. .	242	371	332	327	386	392
United States—						
Metal and alloys .. .. .	40	68	54	200	406	413
Bolivia—						
Ore, etc. (Bi content) .. .. .	367	523	600	656	615	625
Peru—						
Bars, etc. (Bi content) .. .. .	733	822	794	689	n.a.	n.a.
Japan—						
Bismuth .. .. .	251	266	384	237	285	290

(a) Including scrap.

## IMPORTS OF BISMUTH, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bismuth (c) .. ..	368	324	318	324	313	318
Unwrought alloys ..	150	262	158	237	182	185
India (a)—						
Bismuth and alloys ..	16	20	9	19	14	14
Australia (b)—						
Bismuth .. .. .	8	7	12	10	14	14
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bismuth .. .. .	98	89	169	237	280	285
Bismuth salts .. ..	68	81	78	98	67	68
France—						
Bismuth (c) .. .. .	737	793	928	829	903	917
Germany (Federal)—						
Bismuth (c) .. .. .	258	246	147	233	215	218
Italy—						
Bismuth .. .. .	102	52	55	107	171	174
Bismuth salts .. .. .	4	55	n.a.	19	23	23
Netherlands—						
Bismuth salts .. .. .	123	67	84	159	118	120
Poland—						
Bismuth .. .. .	59	103	119	130	63	64
Spain—						
Bismuth .. .. .	10	12	25	34	31	31
Morocco—						
Bismuth salts .. .. .	11	10	19	5	4	4
United States—						
Bismuth .. .. .	751	616	565	399	446	453
Argentina—						
Bismuth and its salts ..	16	18	17	22	14	14
Brazil—						
Bismuth .. .. .	10	10	18	11	2	2
Bismuth salts .. .. .	21	10	15	13	n.a.	n.a.
Columbia—						
Bismuth salts .. .. .	3	1	2	n.a.	n.a.	n.a.
Peru—						
Bismuth salts .. .. .	1	1	n.a.	n.a.	n.a.	n.a.
Japan—						
Bismuth .. .. .	2	2	3	36	31	32
Turkey—						
Bismuth salts .. .. .	5	8	6	16	n.a.	n.a.

(a) Years ended March 31 following that stated.

(c) Including scrap

(b) Years ended June 30 of that stated.



**BORATES**  
**PRODUCTION OF CRUDE BORATES**

Producing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
United States (a)— Borates .. .. .	773,000	796,000	859,000	910,000	937,000	952,000
Argentina— Borates .. .. .	34,787	17,684	20,694	31,286	20,000	20,000
Chile— Boron minerals ..	3,683	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Turkey— Borates .. .. .	221,728	224,891	261,648	319,345	346,000	352,000

Borates are known to have been produced in the U.S.S.R., Germany, Iran and Tibet.

(a) Sold or used by producers.

EXPORTS OF BORATES

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Borax .. .. .	441	332	564	231	178	181
Other borates and perborates .. .. .	11,087	9,613	8,968	7,686	10,065	10,227
<b>OTHER COUNTRIES</b>						
Austria—						
Perborates .. .. .	3,923	3,963	4,231	3,910	3,760	3,820
Belgium-Luxemburg E.U.—						
Boron minerals .. .. .	41	4,366	69	507	2,121	2,155
Borax, refined .. .. .	10	2	3	23	1	1
Boric acid .. .. .	4	18	16	30	77	78
Borates and perborates	8,625	7,597	11,756	15,907	<i>n.a.</i>	<i>n.a.</i>
France—						
Boron minerals .. .. .	2,086	994	4,044	1,455	989	1,005
Borax, refined .. .. .	7,333	7,704	9,056	10,205	7,985	8,113
Boric acid .. .. .	13,995	17,017	17,532	16,790	14,236	14,463
Borates and perborates	7,994	5,251	6,053	6,513	219	223
Germany (Federal)—						
Boron minerals .. .. .	187	211	1,304	4,245	9,140	9,287
Borax .. .. .	109	87	123	640	4,880	4,958
Boric acid .. .. .	51	50	114	149	344	350
Borates and perborates	20,813	22,830	26,497	20,913	16,569	16,835
Italy—						
Boric acid .. .. .	4,865	2,385	1,923	2,758	1,105	1,123
Borax, refined .. .. .	1,077	—	—	—	—	—
Perborates .. .. .	401	311	456	2,129	2,111	2,145
Netherlands—						
Boron minerals .. .. .	167,599	218,549	242,757	269,432	303,455	308,325
Borax, refined .. .. .	43,762	36,706	37,535	37,812	34,347	34,898
Boric acid .. .. .	37	87	44	58	87	88
Perborates .. .. .	5	7	—	—	—	—
Sweden—						
Perborate of sodium .. .. .	23	16	71	912	1,560	1,585
Switzerland—						
Borates and perborates	2,327	2,398	4,111	8,591	8,698	8,838
Yugoslavia—						
Perborates .. .. .	389	871	625	<i>n.a.</i>	89	90
United States—						
Borax (refined) .. .. .	159,873	145,261	150,742	176,066	161,453	164,044
Boric acid .. .. .	25,266	21,239	33,837	32,546	46,757	47,507
Argentina—						
Borates of calcium and sodium .. .. .	157	494	197	—	59	60
Japan—						
Borates and perborates	101	187	190	775	438	445
Boric acid .. .. .	12	27	30	—	59	60
Turkey—						
Borates .. .. .	172,556	208,771	209,419	102,726	<i>n.a.</i>	<i>n.a.</i>

IMPORTS OF BORATES

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Boron minerals .. .. .	<i>n.a.</i>	52,561	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Borax .. .. .	20,946	14,578	12,991	13,008	12,286	12,483
Other Borates and perborates .. .. .	1,820	4,495	3,913	3,007	1,037	1,054
Boric acid .. .. .	4,741	6,228	8,808	9,467	12,548	12,749
Canada—						
Borax .. .. .	9,360	8,990	11,421	9,335	10,513	10,682
Boric acid .. .. .	3,280	3,412	3,859	5,385	4,014	4,078
Hong Kong—						
Borax, refined .. .. .	3,735	4,225	3,612	4,797	4,728	4,804
Boric acid .. .. .	187	135	99	204	206	209
India—						
Boron minerals .. .. .	591	936	4,003	1,673	6,259	6,359
Borax .. .. .	2,137	4,545	1,671	8,422	12,099	12,293
Boric acid (b) .. .. .	25	55	61	4	12	12
Australia (a)—						
Boron minerals .. .. .	1,870	2,010	1,953	1,405	1,725	1,753
Borates and Perborates .. .. .	3,454	4,257	5,055	3,970	4,584	4,658
Boric acid .. .. .	1,350	1,883	2,006	1,769	2,229	2,265
New Zealand (a)—						
Boric acid .. .. .	633	477	423	694	<i>n.a.</i>	<i>n.a.</i>
Borates and perborates .. .. .	1,936	1,283	1,076	1,584	<i>n.a.</i>	<i>n.a.</i>
Irish Republic—						
Borax .. .. .	962	561	1,112	922	1,225	1,245
<b>OTHER COUNTRIES</b>						
Austria—						
Boron minerals .. .. .	5,698	8,018	8,200	7,558	9,693	9,849
Borates and Perborates .. .. .	59	9	441	631	526	534
Boric acid .. .. .	31	11	8	296	730	742
Belgium-Luxemburg						
E.U.—						
Boron minerals .. .. .	11,632	16,659	16,987	21,875	36,169	36,749
Borax, refined .. .. .	3,083	2,361	2,750	3,581	3,435	3,490
Boric acid .. .. .	1,502	961	1,566	3,023	2,396	2,435
Borates and perborates .. .. .	3,665	2,294	2,181	2,184	976	992
Denmark—						
Boron minerals .. .. .	1,292	1,240	1,802	2,217	2,044	2,077
Borax .. .. .	176	225	354	471	546	555
Boric acid .. .. .	101	118	228	127	213	216
Borates and perborates .. .. .	5,347	5,650	6,468	7,656	7,596	7,718
Finland—						
Boron minerals .. .. .	2,390	2,499	2,865	5,119	5,561	5,650
Borax .. .. .	589	698	786	943	859	873
Boric acid .. .. .	187	149	103	182	128	130
Borates and perborates .. .. .	2,140	2,833	2,998	2,377	2,873	2,919
France—						
Boron minerals .. .. .	72,025	81,601	96,118	105,892	115,513	117,367
Borax refined .. .. .	22,002	18,542	15,382	20,812	11,516	11,701
Boric acid .. .. .	814	596	901	1,901	647	657
Borates and perborates .. .. .	1,082	1,219	1,436	1,827	2,321	2,358

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF BORATES (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Germany (Federal)—						
Boron minerals .. ..	64,819	91,124	101,028	106,073	127,613	129,661
Boric acid .. ..	11,005	8,936	13,263	15,684	15,445	15,693
Borax .. ..	16,588	14,018	14,312	19,305	15,562	15,812
Borates and perborates	1,447	153	2,138	1,902	15,775	16,028
Greece—						
Boron minerals .. ..	458	588	472	673	1,220	1,240
Borax .. ..	18	16	28	54	45	46
Boric acid .. ..	61	23	101	244	411	418
Italy—						
Boron minerals .. ..	72,417	69,635	80,704	94,778	122,442	124,407
Borax .. ..	9,540	5,482	8,771	5,737	10,767	10,940
Boric acid .. ..	—	—	—	88	7,008	7,120
Borates .. ..	5,297	3,165	1,023	18,915	9,997	10,158
Perborates .. ..						
Netherlands—						
Boron minerals .. ..	170,902	226,956	276,983	305,122	302,473	307,327
Borax .. ..	50,014	40,203	35,109	45,830	36,861	37,453
Boric acid .. ..	1,643	1,392	1,300	1,779	1,833	1,863
Perborates .. ..	8,290	8,360	12,220	11,882	12,106	12,300
Norway—						
Borax .. ..	2,395	2,571	3,471	3,725	4,267	4,336
Boric acid .. ..	156	208	294	343	339	345
Perborate of sodium ..	2,321	1,983	2,042	2,528	2,916	2,963
Portugal—						
Boric acid .. ..	129	151	123	172	148	150
Borax .. ..	1,818	1,588	2,599	2,709	3,540	3,597
Spain—						
Boron minerals .. ..	13,156	16,810	20,187	25,949	27,388	27,828
Boric acid .. ..	660	696	878	1,425	621	631
Borates and perborates	1,262	1,720	3,307	8,317	4,037	4,102
Sweden—						
Boron minerals .. ..	2,593	4,877	6,262	7,946	10,981	11,066
Borax .. ..	3,035	3,110	3,886	2,811	4,597	4,671
Boric acid .. ..	793	1,089	780	778	647	657
Perborate of sodium ..	6,937	4,793	5,560	5,842	5,237	5,321
Switzerland—						
Boron minerals .. ..	459	740	745	1,227	1,322	1,343
Boric acid .. ..	566	479	475	3,907	461	468
Borates .. ..	5,134	4,907	6,366	7,959	13,558	13,776
Perborates .. ..	123	1,118	2,451	5	83	84
U.S.S.R.—						
Borax .. ..	10,000	7,480	n.a.	n.a.	n.a.	n.a.
Yugoslavia—						
Boron minerals .. ..	1,352	1,821	298	512	1,703	1,730
Boric acid .. ..	550	281	3,405	105	397	403
Borates .. ..	2,913	2,758	4,531	5,677	5,144	5,227
Perborates .. ..	1,550	2,523	1,074	1	—	—
Angola—						
Borax .. ..	43	60	127	92	123	125
Morocco—						
Borates .. ..	406	862	767	856	1,315	1,336
Perborates .. ..	28	27	51	56	53	54
Mozambique—						
Borax .. ..	4	3	6	1	5	5
Boric acid .. ..	2	5	4	5	5	5
South Africa—						
Boron minerals .. ..	804	383	641	762	1,265	1,285
Boric acid .. ..	403	687	403	545	733	745
Borates and perborates	3,985	3,821	2,988	3,106	3,836	3,899
Tunisia—						
Borax etc. .. ..	37	98	35	3	32	33

IMPORTS OF BORATES (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Mexico—</b>						
Borax .. .. .	<i>n.a.</i>	62	105	8	17	17
Boric acid .. ..	1,853	936	985	916	1,671	1,698
<b>Brazil—</b>						
Boron minerals .. ..	1,161	1,926	2,667	2,637	3,397	3,452
Boric acid .. .. .	910	966	1,356	1,293	1,690	1,717
Sodium borate and perborate .. .. .	7,782	6,516	9,564	11,286	11,808	11,997
Borates .. .. .	3	2	18	10	5	5
<b>Colombia—</b>						
Borax .. .. .	1,174	493	899	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	521	129	171	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Perborate of sodium .. ..	92	12	102	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Ecuador—</b>						
Borax .. .. .	37	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Peru—</b>						
Borax .. .. .	388	350	423	413	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	231	285	175	245	<i>n.a.</i>	<i>n.a.</i>
<b>Uruguay—</b>						
Borates .. .. .	303	109	197	224	243	247
<b>Venezuela—</b>						
Borax .. .. .	1,092	1,438	1,250	1,071	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	127	242	205	286	<i>n.a.</i>	<i>n.a.</i>
<b>Formosa—</b>						
Borax .. .. .	1,634	2,059	1,996	2,416	2,100	2,134
Boric acid .. .. .	91	79	196	169	250	254
<b>Iran (a)—</b>						
Borax .. .. .	292	449	485	348	493	501
Boric acid .. .. .	22	27	18	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Israel—</b>						
Borates .. .. .	<i>n.a.</i>	328	487	204	} 474	482
Perborate of sodium .. ..	<i>n.a.</i>	241	186	39		
<b>Japan—</b>						
Borax .. .. .	28,621	39,968	35,883	50,325	39,155	39,783
Boric acid .. .. .	7,954	7,819	10,804	13,889	14,220	14,448
<b>Korea (South)—</b>						
Borax .. .. .	653	1,354	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Lebanon—</b>						
Borates and perborates	1,330	2,111	1,718	1,935	2,320	2,357
<b>Syria—</b>						
Borates and perborates	1,222	629	1,343	1,988	1,773	1,801
<b>Thailand—</b>						
Borax .. .. .	512	582	452	561	824	837
Boric acid .. .. .	95	50	59	921	299	304
<b>Turkey—</b>						
Borax .. .. .	699	1,482	1,734	2,676	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	11	106	16	13	<i>n.a.</i>	<i>n.a.</i>
Borates and perborates	266	41	146	42	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 following that stated.

**BROMINE**  
**PRODUCTION OF BROMINE**

Producing Country	Lb. advp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
India .. .. .	210,000	344,000	514,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
France (a) .. .. .	7,044,000	7,652,000	8,624,500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) .. .. .	7,000,000	4,600,000	5,000,000	5,000,000	5,500,000	2,500,000
Italy .. .. .	4,359,640	7,722,792	8,943,491	9,000,000	<i>n.a.</i>	<i>n.a.</i>
United States (a) (b) .. .. .	275,009,000	292,072,000	304,501,000	335,242,000	349,748,000	158,643,000
Israel .. .. .	9,300,000	16,300,000	20,700,000	23,300,000	24,600,000	11,199,000
Japan .. .. .	11,000,000	13,000,000	13,959,000	16,484,000	21,010,000	9,530,000

Bromine is also produced in the United Kingdom (from sea water) and Spain.

(a) Sales.

(b) Including bromine content of compounds.

**EXPORTS OF BROMINE, ETC.**

Exporting Country and Description	Lb. advp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Bromides and bromates .. .. .	(£161,337)	(£120,840)	(£251,679)	(£231,530)	(£234,315)	(£234,315)
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg E.U.—</b>						
Bromine .. .. .	—	—	—	220	<i>n.a.</i>	<i>n.a.</i>
Bromides, etc. .. .. .	32,200	23,100	77,603	97,885	75,398	34,200
<b>France—</b>						
Bromine .. .. .	2,416,000	2,879,000	3,730,221	4,420,268	<i>n.a.</i>	<i>n.a.</i>
Bromides .. .. .	2,848,000	2,454,000	2,012,820	3,203,316	2,888,055	1,310,000
<b>Germany (Federal)—</b>						
Bromides .. .. .	76,500	60,600	58,900	48,061	54,897	24,901
<b>Italy—</b>						
Bromine .. .. .	205,300	278,003	280,640	157,851	333,118	151,100
Bromides .. .. .	5,500	15,873	9,259	32,187	10,582	4,800
<b>Netherlands—</b>						
Bromides, etc. .. .. .	628,000	740,753	877,440	1,141,994	1,060,423	481,000
<b>Israel—</b>						
Bromine .. .. .	4,967,000	<i>n.a.</i>	6,741,735	8,613,459	<i>n.a.</i>	<i>n.a.</i>
<b>Japan—</b>						
Bromine compounds .. .. .	557,990	793,699	287,423	225,372	273,358	123,992

## IMPORTS OF BROMINE, ETC.

Importing Country and Description	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
Hong Kong—						
Bromates and bromides	18,256	18,592	33,600	29,120	41,776	18,950
India (b)—						
Bromine .. ..	3,146	163	629,320	444,877	932,601	423,021
Bromide of potash ..	1,008	4,409	3,386	1,109	1,691	767
Bromide of soda ..	5,278	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Australia (a)—						
Bromates and bromides of potash .. ..	145,429	161,713	176,206	190,575	169,630	76,943
Bromates and bromides of soda .. ..	72,778	150,130	162,384	154,377	130,635	59,255
Other bromates and bromides .. ..	137,283	109,652	144,034	214,914	120,659	54,730
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bromine .. ..	44,800	35,000	48,000	85,000	95,700	43,400
Bromides, etc. ..	1,162,300	1,567,300	1,440,700	1,460,562	1,649,498	748,200
Denmark—						
Bromine .. ..	24,000	63,000	5,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromide of potash ..	11,000	22,000	} 200,600	167,550	255,736	116,000
Bromide of soda ..	148,000	143,000				
Other bromides ..	35,000	57,000				
Finland—						
Bromine .. ..	2,520	2,721	1,682	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France—						
Bromine .. ..	13,000	—	57,300	—	<i>n.a.</i>	<i>n.a.</i>
Bromides .. ..	104,000	295,400	189,600	121,200	346,100	157,000
Germany (Federal)—						
Bromides .. ..	887,700	1,163,400	1,178,591	1,552,495	2,047,000	928,500
Greece—						
Bromine .. ..	2,652	3,221	97	3,390	—	—
Italy—						
Bromine .. ..	26,455	26,235	44,313	1,602,538	271,169	123,000
Bromides .. ..	286,601	395,729	383,383	1,006,350	1,077,600	488,800
Netherlands—						
Bromine .. ..	1,391,000	1,644,648	1,488,120	1,693,150	2,381,000	1,080,000
Bromides, etc. ..	165,000	158,733	191,802	119,050	178,600	81,000
Portugal—						
Bromine .. ..	882	661	1,764	660	—	—
Bromide of soda ..	} 6,614	24,250	<i>n.a.</i>	30,864	22,000	10,000
Bromide of potash ..						
Bromide of ammonium						
Spain—						
Bromine .. ..	110,284	172,685	219,356	201	165	75
Bromides .. ..	78,773	66,357	126,335	99,208	138,891	63,000
Yugoslavia—						
Bromine .. ..	8,045	2,427	5,004	3,728	13,772	6,247
Bromides, bromates, etc. .. ..	65,319	111,470	96,265	103,154	158,490	71,890
Morocco—						
Bromides .. ..	10,161	9,952	4,147	22,544	19,348	8,776
Mexico—						
Bromine .. ..	80,281	102,771	79,366	112,435	149,808	67,952
Bromides of potash and soda .. ..	29,657	64,035	41,127	79,366	73,694	33,427

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF BROMINE, ETC. (cont.)

Importing Country and Description	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Argentina— Bromine and compounds	186,026	344,840	165,408	257,508	259,096	117,523
Brazil—						
Bromine .. ..	30,206	11,788	558	461	500	227
Bromides .. ..	624,281	268,274	75,311	75,942	13,374	6,066
Chile—						
Bromine .. ..	<i>n.a.</i>	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromides .. ..	<i>n.a.</i>	13	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bromine .. ..	—	2,023	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromides, etc. ..	27,941	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Bromine .. ..	1,122	637	300	492	<i>n.a.</i>	<i>n.a.</i>
Bromides .. ..	7,198	5,794	17,877	2,509	<i>n.a.</i>	<i>n.a.</i>
Iran (a)—						
Bromides .. ..	3,450	30,479	56,934	2,205	22,491	10,202
Japan—						
Bromine compounds ..	165,115	76,397	22,218	63,445	22,952	10,411
Philippine Republic—						
Bromide of potash ..	4,000	4,400	3,549	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Bromide of potash ..	27,750	33,826	23,850	35,273	35,016	15,883
Turkey—						
Bromine .. ..	463	450	990	364	<i>n.a.</i>	<i>n.a.</i>
Bromides .. ..	13,623	20,461	20,818	35,878	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 following that stated.



**CADMIUM**  
**PRODUCTION OF CADMIUM**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	181	205	202	241	313	318
Zambia .. ..	12	10	9	6	12	12
Canada (b) .. ..	1,445	2,159	2,239	2,327	1,896	1,926
Australia .. ..	518	516	465	562	589	598
<b>OTHER COUNTRIES</b>						
Austria .. ..	21	19	19	19	24	24
Belgium .. ..	700	700	800	(g) 800	890	900
France .. ..	440	490	517	515	(g) 482	(g) 490
Germany (Federal) ..	350	392	337	779	1,019	1,035
Italy .. ..	241	215	246	415	(g) 446	454
Netherlands (e) ..	100	100	140	140	138	140
Norway .. ..	71	83	86	85	96	98
Poland (g) .. ..	425	409	409	413	442	449
Spain (e) .. ..	60	66	69	79	109	111
U.S.S.R. (g) .. ..	1,900	2,165	2,165	2,263	2,321	2,359
Yugoslavia (g) ..	40	147	148	147	167	170
Congo (Kinshasa) ..	414	279	315	348	312	317
South West Africa ..	(a) 433	178	154	234	202	205
Honduras .. ..	107	111	118	150	180	180
Mexico (c) .. ..	799	1,226	1,175	1,553	1,936	1,967
United States—						
Metal (d) .. ..	4,670	3,883	4,755	5,646	4,225	4,293
Ecuador .. ..	1	1	—	—	1	1
Peru (f) .. ..	402	437	168	166	181	184
Japan .. ..	1,476	1,867	2,160	2,721	2,401	2,440
Philippine Republic ..	5	3	2	—	—	—
<b>TOTAL* .. ..</b>	<b>13,000</b>	<b>15,000</b>	<b>15,000</b>	<b>17,000</b>	<b>16,000</b>	<b>17,000</b>

\*In the case of South West Africa and Mexico the metal is wholly or mainly extracted in other countries and, to avoid duplication, is excluded from the total. A certain amount of duplication in the case of certain other countries, however, is unavoidable.

Cadmium is also reported to be produced in Bulgaria.

- (a) Estimated cadmium content of copper-lead-zinc concentrates produced and exported for treatment, plus production of metal.
- (b) Metal produced plus cadmium content of concentrates exported.
- (c) Including cadmium content of flue dust, etc., exported for treatment.
- (d) Including secondary.
- (e) Estimate. Source: "Metallgesellschaft".
- (f) Including recoverable cadmium content of concentrates.
- (g) Estimate. Source: United States Bureau of Mines.

EXPORTS OF CADMIUM, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Zambia .. .. .	8	11	9	8	<i>n.a.</i>	<i>n.a.</i>
Canada .. .. .	898	749	805	753	691	702
Australia .. .. .	<i>r</i> 526	<i>r</i> 382	<i>r</i> 327	423	516	524
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U. (a) .. .. .	573	646	847	1,020	815	828
France—						
Cadmium (a) .. .. .	45	47	49	57	103	105
Cadmium sulphide .. .. .	2	19	24	49	26	26
Germany (Federal)—						
Cadmium (a) .. .. .	136	145	68	154	245	249
Cadmium oxide .. .. .	<i>n.a.</i>	<i>n.a.</i>	13	10	9	9
Italy—						
Cadmium (a) .. .. .	93	74	53	38	82	83
Netherlands (a) .. .. .	262	248	402	191	164	167
Norway .. .. .	69	65	75	78	84	85
Poland .. .. .	334	277	284	273	218	222
U.S.S.R. .. .. .	600	500	689	689	871	885
Yugoslavia .. .. .	<i>n.a.</i>	12	71	128	54	55
Congo (Kinshasa) (d) .. .. .	340	260	470	500	<i>n.a.</i>	<i>n.a.</i>
South West Africa (b) .. .. .	411	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico (c) .. .. .	1,110	876	171	1,058	975	991
United States—						
Metal, alloys, dross, flue						
dust, etc. .. .. .	169	309	237	484	166	169
Peru .. .. .	248	152	162	163	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	648	556	698	760	930	945

(a) Including scrap.

(b) Cadmium content of concentrates exported for treatment plus exports of metal.

(c) Including cadmium content of flue dust, etc., exported for treatment.

(d) Estimated.

IMPORTS OF CADMIUM, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	638	1,070	1,238	1,340	1,160	1,179
India (a) .. .. .	62	109	34	1	2	2
<b>OTHER COUNTRIES</b>						
Austria .. .. .	8	8	10	11	15	15
Belgium-Luxemburg						
E.U. (b) .. .. .	514	392	624	752	708	719
Denmark .. .. .	15	22	24	23	23	23
France—						
Cadmium (b) .. .. .	540	497	346	738	596	606
Cadmium sulphide .. .. .	17	21	15	20	20	20
Germany (Federal)—						
Cadmium (b) .. .. .	1,129	1,171	1,512	1,726	1,205	1,224
Cadmium oxide .. .. .	n.a.	n.a.	n.a.	185	207	210
Italy—						
Cadmium (b) .. .. .	56	89	167	36	39	40
Cadmium oxide .. .. .	15	11	6	n.a.	n.a.	n.a.
Cadmium sulphide .. .. .	n.a.	18	24	31	26	26
Netherlands—						
Cadmium (b) .. .. .	257	168	343	121	145	147
Cadmium salts .. .. .	92	123	121	143	139	141
Spain .. .. .	21	3	4	9	5	5
Sweden .. .. .	215	113	93	77	158	161
U.S.S.R. .. .. .	179	217	231	214	305	310
Yugoslavia .. .. .	9	4	—	—	3	3
United States—						
Cadmium .. .. .	1,499	708	860	481	1,113	1,131
Flue dust (cadmium content) .. .. .	527	520	717	498	496	504
Argentina—						
Cadmium and salts .. .. .	2	1	—	—	—	—
Brazil—						
Cadmium .. .. .	56	45	62	68	48	49
Cadmium salts .. .. .	—	3	1	—	—	—
Japan .. .. .	14	31	17	9	n.a.	n.a.

(a) Years ended March 31 following that stated.

(b) Including scrap.

**CEMENT**  
**PRODUCTION OF CEMENT**

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	16,486,000	17,304,000	17,592,000	17,148,000	16,788,000	17,057,000
Kenya .. .. .	463,000	485,804	535,000	642,776	788,955	801,615
Malawi .. .. .	43,000	43,000	54,000	60,000	69,000	70,000
Nigeria .. .. .	986,000	709,810	564,000	557,000	587,000	596,000
Uganda .. .. .	120,000	135,142	150,000	167,000	188,000	191,000
Zambia .. .. .	252,000	240,000	275,000	205,000	371,000	377,000
Canada (a) .. .. .	7,973,707	7,138,351	7,290,897	7,366,099	7,201,000	7,317,000
Bahamas (c) .. .. .	820,000	820,000	820,000	820,000	820,000	830,000
Jamaica .. .. .	349,819	329,722	403,000	407,000	449,458	456,649
Trinidad .. .. .	208,500	187,200	206,600	239,500	266,000	270,000
Ceylon .. .. .	81,572	188,741	218,490	278,652	321,001	326,152
Cyprus .. .. .	89,566	182,158	237,500	242,600	264,522	268,767
Hong Kong .. .. .	243,016	212,000	255,000	372,000	423,000	429,600
India .. .. .	10,877,000	11,122,000	11,400,000	13,400,000	13,700,000	13,900,000
Malaysia (West) .. .. .	771,000	885,000	922,538	958,094	1,013,000	1,030,000
Pakistan .. .. .	1,856,000	2,006,000	2,532,000	2,656,000	2,586,000	2,628,000
Australia .. .. .	3,616,000	3,769,000	3,868,000	4,240,000	4,526,000	4,599,000
Fiji .. .. .	40,000	46,000	50,000	55,000	59,000	60,000
New Zealand .. .. .	864,000	801,000	751,000	790,000	803,000	816,000
<b>TOTAL .. .. .</b>	<b>46,000,000</b>	<b>45,000,000</b>	<b>48,000,000</b>	<b>51,000,000</b>	<b>51,000,000</b>	<b>52,000,000</b>
Irish Republic .. .. .	1,118,016	1,243,786	1,330,996	1,252,550	845,830	859,406
<b>OTHER COUNTRIES</b>						
Albania .. .. .	137,000	218,000	217,000	217,000	217,000	220,000
Austria .. .. .	4,429,990	4,476,240	4,478,600	4,490,000	4,730,000	4,806,000
Belgium (b) .. .. .	5,702,000	4,828,400	5,652,222	6,170,372	6,623,206	6,729,489
Bulgaria .. .. .	2,806,000	3,305,000	3,457,000	3,496,000	3,614,000	3,672,000
Czechoslovakia .. .. .	6,033,000	6,358,000	6,390,000	6,627,000	7,285,000	7,402,000
Denmark—						
Portland cement .. .. .						
Special cements .. .. .	1,993,535	2,168,653	2,241,976	2,563,000	2,562,667	2,603,790
Finland .. .. .	1,532,000	1,490,088	1,453,000	1,731,000	1,810,000	1,839,000
France—						
Portland cement .. .. .	17,746,365	18,928,390	20,324,835	21,726,064		
Portland blast furnace cements .. .. .	3,494,278	3,557,425	3,171,100			
Slag cements .. .. .	1,805	49,490	1,745			
Masonry cements .. .. .	628,055	542,224	627,117	1,035,618		
Natural cements .. .. .	80,160	102,249	46,774	29,430		
Special cements .. .. .	985,332	852,203	820,807	1,338,495		
Germany (Federal)—						
Portland cement .. .. .	25,375,000	23,287,000	24,919,000	26,553,000	29,262,000	29,732,000
Portland blast furnace cements .. .. .	7,960,000	7,090,000	7,109,000	7,093,000	7,307,000	7,424,000
Special cements .. .. .	854,000	832,000	887,000	878,000	1,151,000	1,169,000
Germany (East) .. .. .	6,348,000	7,069,000	7,432,000	7,292,000	7,861,000	7,987,000
Greece .. .. .	3,537,583	3,675,602	4,015,072	4,763,560	4,800,000	4,900,000
Hungary .. .. .	2,560,000	2,614,000	2,757,000	2,524,000	2,727,000	2,771,000
Iceland .. .. .	113,000	114,000	100,000	100,000	85,000	86,000
Italy .. .. .	22,000,000	26,000,000	29,000,000	31,000,000	32,000,000	33,000,000
Luxemburg .. .. .	209,000	179,848	188,322	203,668	241,320	245,192
Netherlands .. .. .	3,113,000	3,296,000	3,382,000	3,200,000	3,768,000	3,828,000
Norway .. .. .	1,797,685	2,118,278	2,260,809	2,453,000	2,593,000	2,635,000
Poland .. .. .	9,881,000	10,962,000	11,410,000	11,643,000	11,988,000	12,180,000
Portugal .. .. .	1,692,682	1,792,664	1,832,521	2,002,625	2,309,868	2,346,935
Roumania .. .. .	5,793,000	6,239,000	6,915,000	7,396,000	7,999,000	8,127,000

- (a) Sold or used by producers. Excluding Portland cement made from imported clinker.  
 (b) Excluding natural cement.  
 (c) Estimate based on full capacity production.

## PRODUCTION OF CEMENT (cont.)

Long tons      Tonnes

Producing Country	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Spain—						
Portland cement ..	10,603,927	12,074,346	13,918,341	14,825,120	15,529,221	15,778,426
Natural cement ..	263,068	334,038	273,919	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other cements ..	1,023,299	817,821	754,419	934,741	745,416	757,378
Sweden—						
Portland cement ..	3,591,834	3,743,590	} 3,850,477	3,895,061	{ 3,930,000	3,994,000
Other cements ..	105,209	96,274				
Switzerland ..	4,257,326	4,109,723	4,252,278	4,462,533	4,724,000	4,800,000
U.S.S.R. ..	78,740,000	83,460,000	86,069,000	88,354,000	93,740,000	95,244,000
Yugoslavia ..	3,181,000	3,261,000	3,804,000	3,901,000	4,330,000	4,399,000
Algeria ..	648,000	719,000	853,000	927,000	909,000	924,000
Angola ..	259,858	274,862	306,764	376,714	442,612	449,715
Canary Islands ..	(g)	(g)	(g)	—	(g)	(g)
Cape Verde Islands ..	3,000	8,000	9,000	—	—	—
Congo (Kinshasa) ..	(e) 260,000	287,000	289,000	317,000	378,000	384,000
Egypt ..	2,587,000	2,711,000	3,097,124	3,556,000	3,638,000	3,696,000
Ethiopia (d) ..	(e) 98,000	148,000	168,000	195,000	201,000	204,000
Morocco ..	843,200	860,368	999,794	1,149,900	1,400,000	1,400,000
Mozambique ..	220,529	239,115	281,000	300,849	378,921	385,002
Senegal ..	191,400	169,700	199,100	203,600	237,200	241,000
Sudan ..	98,000	89,000	145,000	166,000	187,000	190,000
Tunisia ..	469,000	464,000	462,000	592,900	537,000	546,000
South Africa ..	3,926,980	3,750,000	3,995,000	5,033,000	5,600,000	5,700,000
Costa Rica ..	113,894	115,312	126,442	149,030	184,125	187,080
Cuba ..	787,000	882,000	<i>n.a.</i>	f 1,400,000	f 1,500,000	f 1,500,000
Dominican Republic ..	273,110	305,442	321,540	383,772	480,568	488,280
Guatemala ..	167,000	165,629	161,517	180,429	186,363	189,354
Haiti ..	37,000	39,000	40,000	60,000	60,000	60,000
Honduras ..	103,000	109,000	127,000	129,646	130,000	130,000
Mexico ..	4,890,000	5,400,000	5,913,000	6,549,000	7,152,000	7,267,000
Nicaragua ..	86,600	89,285	108,755	107,357	125,438	127,451
Panama Republic ..	148,000	148,000	162,000	171,000	180,000	180,000
Salvador ..	139,176	143,054	152,278	139,475	164,284	166,920
United States (a)—						
Portland cement ..	64,563,200	62,006,300	66,288,300	68,748,000	65,328,000	66,376,000
Prepared masonry cement (b) ..	2,858,000	2,745,000	2,900,100	2,907,000	2,632,000	2,674,000
Natural, slag and hydraulic lime cements ..	19,000	15,900	14,400	15,000	<i>n.a.</i>	<i>n.a.</i>
Argentina ..	3,431,720	3,496,650	4,146,331	4,278,215	4,667,811	4,742,716
Bolivia ..	65,000	(f) 66,000	70,000	69,700	117,690	119,579
Brazil ..	5,465,000	6,363,000	7,240,000	7,699,926	8,860,250	9,002,431
Chile ..	1,342,686	1,184,064	1,230,963	1,420,000	1,323,000	1,344,000
Colombia ..	2,192,803	2,080,314	2,329,826	2,353,238	2,728,000	2,772,000
Ecuador ..	372,000	422,914	434,000	449,000	451,000	458,000
Paraguay ..	26,000	15,000	24,000	36,809	67,000	68,000
Peru ..	r 1,057,000	r 1,070,379	r 1,091,323	r 1,119,077	f 1,130,000	f 1,150,000
Uruguay ..	471,000	414,000	506,000	460,000	493,000	501,000
Venezuela ..	2,080,272	2,242,320	2,398,173	2,106,000	2,596,000	2,638,000
Afghanistan (c) ..	174,000	123,600	90,600	103,400	103,000	105,000
Burma ..	139,000	138,000	174,000	197,000	154,000	156,000
Cambodia ..	58,000	(e) 59,000	59,000	59,000	39,000	40,000
China ..	e 11,000,000	e 8,000,000	8,853,000	10,000,000	e 10,000,000	e 10,000,000
Formosa ..	3,060,000	3,431,743	3,930,300	4,023,000	4,240,000	4,308,000
Indonesia ..	333,000	324,000	404,000	531,000	591,000	600,000
Iran (c) ..	1,372,000	1,372,000	1,377,000	f 1,380,000	<i>n.a.</i>	<i>n.a.</i>
Iraq ..	1,321,000	e 1,575,000	1,575,000	1,377,000	f 1,500,000	f 1,500,000

(a) Including Puerto Rico.

(b) Excluding masonry cement produced by companies purchasing Portland cement for reprocessing.

(c) Years ended March 20 of year following that stated.

(d) Years ended September 10 of that stated.

(e) United States Bureau of Mines' estimate.

(f) Estimated.

(g) Included with Spain.

## PRODUCTION OF CEMENT (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Israel .. .. .	1,150,000	791,000	1,087,000	1,279,000	1,362,000	1,384,000
Japan .. .. .	37,672,000	42,608,000	46,927,000	50,575,000	56,290,000	57,190,000
Jordan .. .. .	368,264	315,495	375,189	480,400	372,000	378,000
Korea (South) .. .. .	1,850,528	2,402,473	3,516,000	4,788,000	5,720,000	5,812,000
Korea (North) .. .. .	2,460,000	2,559,000	2,656,000	2,760,000	<sup>a</sup> 2,900,000	<sup>a</sup> 2,900,000
Lebanon .. .. .	1,079,000	1,000,000	892,000	1,233,000	1,320,000	1,340,000
Philippine Republic .. .. .	1,620,000	2,079,000	2,518,000	2,900,000	2,425,000	2,464,000
Saudi Arabia .. .. .	246,000	348,000	393,000	549,000	640,000	650,000
Syria .. .. .	671,000	677,000	902,000	919,000	948,000	964,000
Thailand .. .. .	1,459,312	1,710,000	2,133,960	2,365,430	2,791,000	2,836,000
Turkey .. .. .	3,803,696	4,181,892	4,653,000	5,704,000	6,260,000	6,360,000
Vietnam (South) .. .. .	132,527	177,901	143,000	243,000	280,000	284,000
Vietnam (North) .. .. .	<sup>(b)</sup> 738,000	<sup>(b)</sup> 738,000	<sup>(b)</sup> 500,000	<sup>(b)</sup> 500,000	<sup>(a)</sup> 600,000	<sup>(a)</sup> 600,000
<b>TOTAL (a)</b> .. .. .	409,000,000	425,000,000	454,000,000	481,000,000	507,000,000	515,000,000
<b>WORLD'S TOTAL (a)</b>	456,000,000	470,000,000	503,000,000	533,000,000	558,000,000	567,000,000

(a) Estimated.

(b) United States Bureau of Mines' estimate.

**CHINA CLAY**  
**PRODUCTION OF CHINA CLAY**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (c) ..	2,482,000	2,581,000	2,751,000	2,751,000	3,100,000	3,149,000
Kenya .. .. .	879	1,433	1,331	1,449	1,742	1,770
Nigeria .. .. .	20	320	233	462	482	490
Swaziland .. .. .	578	1,830	2,111	1,631	1,594	1,620
Tanzania .. .. .	286	307	596	732	457	464
Ceylon .. .. .	1,591	2,574	2,822	3,035	2,174	2,209
Hong Kong .. .. .	5,771	8,435	5,575	4,341	3,725	3,785
India .. .. .	540,329	504,898	498,000	547,059	529,921	538,425
Malaysia (West) ..	1,576	1,758	1,497	2,016	3,274	3,326
Pakistan .. .. .	2,714	2,881	3,033	3,792	<i>n.a.</i>	<i>n.a.</i>
Australia .. .. .	50,110	66,112	59,343	64,450	88,162	89,577
<b>OTHER COUNTRIES</b>						
Austria (crude) ..	371,715	377,718	321,978	342,575	334,477	339,844
Belgium .. .. .	178,267	97,245	(e) 97,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bulgaria (f) .. ..	92,000	123,000	125,000	128,000	<i>n.a.</i>	<i>n.a.</i>
Czechoslovakia ..	320,000	335,000	336,000	338,000	361,000	367,000
France .. .. .	150,000	148,000	(d) 432,921	(d) 420,574	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) ..	400,687	397,339	460,912	481,655	517,652	525,959
Greece .. .. .	62,469	59,052	77,623	59,000	52,000	53,000
Hungary .. .. .	61,000	65,000	62,000	59,000	76,300	77,500
Italy—						
Crude .. .. .	83,352	86,397	85,659	94,990	<i>n.a.</i>	<i>n.a.</i>
Kaolinic earth ..	15,403	15,000	10,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Portugal—						
Crude and washed ..	33,528	36,621	40,754	44,122	52,185	53,023
Spain (f) .. .. .	188,022	212,606	223,114	269,982	<i>n.a.</i>	<i>n.a.</i>
Sweden (b) .. .. .	26,855	28,666	27,263	28,247	<i>n.a.</i>	<i>n.a.</i>
Yugoslavia .. .. .	5,000	4,500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt .. .. .	49,198	31,613	30,776	77,000	<i>n.a.</i>	<i>n.a.</i>
Eritrea .. .. .	<i>n.a.</i>	500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mozambique .. .. .	345	612	514	1,250	1,452	1,476
South Africa .. ..	39,879	32,316	32,195	32,636	36,313	36,896
Mexico .. .. .	95,065	77,350	74,520	88,315	<i>n.a.</i>	<i>n.a.</i>
United States (a) ..	3,915,577	3,547,249	3,751,000	4,231,000	4,402,000	4,473,000
Argentina .. .. .	72,270	63,084	71,009	79,627	<i>n.a.</i>	<i>n.a.</i>
Chile .. .. .	39,862	28,959	26,000	41,000	47,786	48,553
Colombia .. .. .	25,893	82,790	82,700	86,800	91,147	92,610
Ecuador .. .. .	1,907	70	900	478	759	771
Peru .. .. .	411	<i>n.a.</i>	113	1,574	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	115,706	147,913	167,000	186,000	<i>n.a.</i>	<i>n.a.</i>
Korea (South) .. ..	104,070	101,054	59,557	52,146	83,272	84,608

China clay is known to have been produced in East Germany, Roumania, U.S.S.R., Brazil, China, Formosa, Israel, Indonesia and Thailand.

(a) Sold or used by producers.

(e) United States Bureau of Mines' estimate.

(b) Sales.

(f) Washed or equivalent.

(c) The figures are unofficial. The official production statistics for China Clay and China Stone together are as follows (long tons): 1966—2,512,000; 1967—2,611,000; 1968—2,781,000; 1969—2,784,000; 1970—3,133,000 (3,183,000 tonnes);

(d) Kaolin and kaolinic clay.

EXPORTS OF CHINA CLAY

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,712,091	1,760,137	1,848,145	2,096,278	2,137,858	2,172,171
Hong Kong .. ..	3,924	4,823	3,062	4,875	4,404	4,475
India (a) .. ..	80	529	107	135	374	380
Malaysia (West) ..	216	120	138	549	947	962
<b>OTHER COUNTRIES</b>						
Austria .. .. .	30,990	27,374	26,385	28,611	24,813	25,211
Belgium-Luxemburg						
E.U. .. .. .	921	1,220	1,052	1,433	10,473	10,641
Czechoslovakia ..	163,000	162,000	167,000	245,000	189,000	192,000
Denmark .. .. .	92	57	46	42	41	42
France .. .. .	55,062	52,784	59,206	62,892	68,999	70,106
Germany (Federal) ..	65,300	77,311	75,594	89,684	96,827	98,381
Germany (East) ..	71,522	78,503	72,444	63,516	83,876	85,222
Italy .. .. .	390	234	469	589	1,653	1,680
Netherlands .. ..	740	145	20,792	37,550	44,959	45,680
Portugal .. .. .	2,397	2,401	429	892	1,304	1,325
Spain .. .. .	18,220	19,277	17,428	32,482	39,583	40,218
Sweden .. .. .	141	160	1,993	540	122	124
U.S.S.R. .. .. .	300	5,200	13,287	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa .. ..	505	872	701	633	560	569
United States .. ..	226,257	287,437	348,109	426,495	728,825	740,515
Argentina .. .. .	5	41	22	71	76	77
Brazil .. .. .	689	945	1,403	787	1,479	1,503
Japan .. .. .	1,018	1,743	2,665	3,943	7,908	8,035
Korea (South) .. ..	28,016	25,942	38,982	40,355	87,622	89,028
Turkey .. .. .	49	—	—	—	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 31 following that stated.



IMPORTS OF CHINA CLAY

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	175,693	169,921	160,979	205,327	212,151	215,555
Hong Kong .. .. .	131	51	148	389	998	1,014
India .. .. .	2,019	3,412	2,072	2,992	971	987
Malaysia (West) .. .. .	1,233	1,299	1,177	1,397	1,396	1,418
Australia .. .. .	25,652	26,197	25,549	24,276	41,932	42,605
New Zealand (b) .. .. .	2,602	3,004	2,413	3,845	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	21,805	27,955	31,264	38,838	47,270	48,029
Belgium-Luxemburg E.U. .. .. .	92,017	93,897	128,714	179,842	226,218	229,848
Denmark .. .. .	37,793	30,877	35,232	37,436	41,532	42,199
Finland .. .. .	178,754	209,726	199,596	234,197	303,723	308,597
France .. .. .	236,064	225,048	252,368	281,752	312,578	317,594
Germany (Federal) .. .. .	420,637	391,800	498,025	534,432	632,237	642,383
Germany (East) .. .. .	31,404	26,194	29,301	28,263	34,355	34,906
Hungary .. .. .	65,878	63,939	67,073	89,934	75,269	76,477
Italy .. .. .	321,408	364,692	438,375	479,947	552,426	561,291
Netherlands .. .. .	142,551	131,439	150,327	190,312	225,238	228,852
Norway .. .. .	70,658	66,681	72,755	85,744	79,129	80,399
Poland .. .. .	76,567	70,187	77,799	89,632	110,710	113,503
Portugal .. .. .	446	970	2,253	3,539	4,434	4,505
Spain .. .. .	38,612	44,189	52,760	63,980	75,806	77,022
Sweden .. .. .	116,738	189,506	204,560	212,771	234,741	238,508
Yugoslavia .. .. .	23,001	26,096	29,233	35,591	36,871	37,463
Algeria .. .. .	<i>n.a.</i>	6,294	5,243	4,920	<i>n.a.</i>	<i>n.a.</i>
Angola .. .. .	84	74	99	92	60	61
Morocco .. .. .	2,387	2,004	3,013	3,414	3,205	3,256
Mozambique .. .. .	94	73	73	84	72	73
Costa Rica .. .. .	134	176	394	152	568	577
Guatemala .. .. .	301	657	897	1,137	1,527	1,552
Mexico .. .. .	13,201	12,897	17,373	20,005	22,949	23,317
United States .. .. .	104,309	82,229	67,094	58,217	58,335	59,271
Argentina .. .. .	10,494	11,411	13,599	15,332	14,726	14,962
Brazil .. .. .	472	909	1,723	2,327	6,137	6,235
Chile .. .. .	270	165	200	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. .. .	4,579	2,219	3,144	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador .. .. .	83	25	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	1,603	3,488	2,882	2,872	<i>n.a.</i>	<i>n.a.</i>
Uruguay .. .. .	1,588	1,618	1,327	1,399	2,687	2,730
Venezuela .. .. .	5,566	6,375	9,645	8,960	<i>n.a.</i>	<i>n.a.</i>
Iran (a) .. .. .	422	639	1,040	664	3,503	3,559
Japan .. .. .	78,928	102,286	122,157	134,387	239,221	243,060
Philippine Republic .. .. .	3,267	3,888	4,822	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey .. .. .	17	25	21	26	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 following that stated.

(b) Years ended June 30 of that stated.

**CHROME ORE AND CHROMIUM  
PRODUCTION OF CHROME ORE**

Producing Country	Long tons					Tonnes							
	Estimated Cr <sub>2</sub> O <sub>3</sub> content					Long tons					Tonnes		
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1970		
<b>COMMONWEALTH COUNTRIES</b>													
Rhodesia .. .. .	b 500,000	b 312,000	b 375,000	b 357,000	b 357,000	b 321,000	b 321,000	b 321,000	b 357,000	b 357,000	b 363,000	178,000	181,000
Cyprus (a) .. .. .	10,297	21,035	24,708	23,543	32,808	70,200	35,600	118,606	120,599	120,599	33,335	11,000	16,300
India .. .. .	76,430	107,805	202,409	222,496	266,601	23,800	13,000	27,007	27,440	27,440	270,879	106,800	130,000
Pakistan (c) .. .. .	26,718	25,956	23,610	25,893	n.a.	1,673,000	1,620,000	1,722,000	1,750,000	1,750,000	n.a.	13,000	n.a.
TOTAL .. .. .	600,000	467,000	628,000	629,000	682,000	693,000	693,000	693,000	693,000	693,000	693,000	510,536	642,000
<b>OTHER COUNTRIES</b>													
Albania .. .. .	296,900	321,700	b 321,000	b 321,000	b 446,000	b 454,000	b 454,000	b 454,000	b 454,000	b 454,000	n.a.	n.a.	n.a.
Finland .. .. .	n.a.	6,300	35,600	70,200	118,606	120,599	120,599	120,599	120,599	120,599	20,000	29,600	50,600
Greece .. .. .	45,596	10,257	13,000	23,800	27,007	27,440	27,440	27,440	27,440	27,440	5,000	11,000	12,000
U.S.S.R. (b) .. .. .	1,400,000	1,500,000	1,620,000	1,673,000	1,722,000	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	n.a.	n.a.	n.a.
Yugoslavia .. .. .	53,355	46,417	44,546	38,711	39,924	40,565	40,565	40,565	40,565	40,565	18,400	12,800	13,400
Malagasy Republic .. .. .	1,044,186	1,130,906	1,134,524	1,178,752	1,404,717	1,427,259	1,427,259	1,427,259	1,427,259	1,427,259	470,000	530,483	642,000
South Africa .. .. .	17,000	18,000	22,000	25,000	26,000	26,000	26,000	26,000	26,000	26,000	n.a.	n.a.	n.a.
Sudan .. .. .	(b) 29,000	(b) 29,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cuba .. .. .	23,856	14,788	16,762	16,071	27,180	27,616	27,616	27,616	27,616	27,616	n.a.	n.a.	n.a.
Brazil .. .. .	—	—	—	—	160	170	170	170	170	170	—	—	—
Colombia .. .. .	140,000	147,000	157,000	180,000	220,000	220,000	220,000	220,000	220,000	220,000	70,000	86,000	103,000
Iran (d) .. .. .	32,314	44,497	27,450	29,312	31,946	32,459	32,459	32,459	32,459	32,459	11,000	10,700	11,700
Japan .. .. .	521,264	413,124	431,768	462,240	566,723	575,818	575,818	575,818	575,818	575,818	188,000	166,000	201,000
Philippine Republic .. .. .	510,475	438,763	412,189	446,733	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	245,000	198,000	201,000
Turkey (e) .. .. .	—	1,795	—	—	—	—	—	—	—	—	—	—	—
New Caledonia .. .. .	—	—	—	—	—	—	—	—	—	—	—	933	—
TOTAL .. .. .	4,200,000	4,000,000	4,300,000	4,700,000	5,300,000	5,400,000	5,400,000	5,400,000	5,400,000	5,400,000	5,400,000	5,400,000	5,400,000
WORLD'S TOTAL .. .. .	4,800,000	4,700,000	4,900,000	5,300,000	6,000,000	6,100,000	6,100,000	6,100,000	6,100,000	6,100,000	6,100,000	6,100,000	6,100,000

Chrome ore is also produced in Bulgaria, Rourmania and North Vietnam.

(a) Figures relate to saleable production. (b) United States Bureau of Mines' estimate. (c) West Pakistan. (d) Years ended March 20 following that stated.

## EXPORTS OF CHROME ORE, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Chromium metal ..	1,527	639	1,054	1,262	(d) 1,587	(d) 1,612
Canada—						
Ferro-chrome .. ..	31	—	1	—	—	—
Cyprus—						
Ore and concentrates ..	2,501	26,948	23,591	27,973	30,752	31,246
India (a)—						
Ore .. .. .	68,717	65,980	108,327	140,927	115,732	117,589
Pakistan—						
Ore .. .. .	21,883	(c) 13,286	(c) 2,489	(c) 1,083	(c) 50,642	(c) 51,455
OTHER COUNTRIES						
Albania—						
Ore .. .. .	304,100	317,900	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Austria—						
Ore .. .. .	486	508	234	697	93	94
Finland—						
Ferro-chrome and ferro-silico-chrome ..	—	—	589	19,359	28,399	29,465
France—						
Chromium metal ..	321	225	210	338	316	321
Ferro-chrome .. ..	24,934	20,662	21,318	12,711	11,209	11,389
Germany (Federal)—						
Ore .. .. .	1,178	1,382	1,295	3,258	2,854	2,900
Chromium metal ..	79	97	19	29	211	214
Greece—						
Ore .. .. .	20,345	13,226	15,088	25,453	24,581	24,975
Italy—						
Ore .. .. .	14	47	114	117	241	245
Ferro-chrome .. ..	7,941	7,498	3,787	7,329	5,911	6,006
Netherlands—						
Ore .. .. .	1,686	3,268	3,727	2,555	4,164	4,231
Norway—						
Ferro-chrome .. ..	28,797	27,065	33,690	37,894	31,989	32,502
Ferro-silico-chrome ..	355	945	5,021	3,087	1,424	1,447
Sweden—						
Ore .. .. .	—	—	84	25	10	10
Ferro-chrome .. ..	22,555	22,979	22,591	21,372	20,503	20,832
U.S.S.R.—						
Ore .. .. .	905,000	1,013,733	1,031,448	1,125,900	1,181,000	1,200,000
Ferro-chrome .. ..	29,300	31,000	32,800	37,200	44,092	44,800
Yugoslavia—						
Ore and concentrates ..	12,864	6,811	9,114	3,090	11,148	11,327
Ferro-chrome .. ..	9,090	8,028	8,303	5,811	9,998	10,158
Malagasy Republic—						
Ore .. .. .	1	—	—	32,459	128,283	130,342
South Africa—						
Ore .. .. .	812,628	690,054	772,755	905,219	963,974	979,443
Cuba—						
Ore .. .. .	36,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States—						
Ore .. .. .	16,614	6,780	11,201	44,184	36,497	37,083
Chromium metal ..	116	82	78	134	201	204
Ferro-chrome .. ..	6,828	12,012	24,221	21,940	25,332	25,739
Iran (b)—						
Ore .. .. .	129,743	87,368	61,147	143,005	218,950	222,463

(a) Years ended March 31 following that stated.

(b) Years ended March 20 following that stated.

(c) Years ended June 30th of that stated.

(d) Including vanadium.

## EXPORTS OF CHROME ORE, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Ore and concentrates ..	<i>n.a.</i>	5	1	—	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. ..	21,904	6,228	5,515	3,047	1,932	1,963
Philippine Republic—						
Ore and concentrates ..	568,856	455,752	r 429,922	500,000	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Ore .. ..	500,687	309,346	380,806	489,269	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. ..	7,251	5,123	9,678	7,096	<i>n.a.</i>	<i>n.a.</i>
New Caledonia—						
Ore .. ..	—	1,216	—	—	—	—

## IMPORTS OF CHROME ORE, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	185,662	98,359	156,432	195,643	161,906	164,505
Ferro-chrome .. ..	50,065	44,627	58,464	65,338	69,002	70,109
Ferro-silico-chrome ..	4,133	5,998	4,299	7,773	8,387	8,522
Zambia—						
Ore .. .. .	513	848	801	1,929	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Ore and concentrates ..						
(Cr content) .. .. .	18,643	30,790	20,002	37,433	27,184	27,620
Ferro-chrome .. .. .	11,193	19,411	13,433	22,431	20,485	20,814
India—						
Ore .. .. .	1	5	—	—	—	—
Ferro-chrome (a) .. ..	519	1,185	459	1,411	13	13
Australia—						
Ore .. .. .	4,025	25,115	23,898	18,688	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. .. .	2,420	3,430	3,487	5,877	12,879	13,086
OTHER COUNTRIES						
Austria—						
Ore .. .. .	47,310	36,405	53,678	83,830	80,501	81,793
Ferro-chrome .. .. .	16,053	14,420	17,640	23,669	19,479	19,792
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	1,683	2,098	13,991	17,490	18,253	18,546
Chromium metal .. ..	12	27	51	56	72	73
Ferro-chrome and silico- chrome .. .. .	6,571	6,721	7,582	8,727	14,751	14,988
Czechoslovakia—						
Ore .. .. .	184,000	155,000	188,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Denmark—						
Ferro-chrome .. .. .	480	401	593	798	710	721
Finland—						
Ferro-chrome .. .. .	1,090	1,000	1,291	1,428	1,436	1,459
France—						
Ore .. .. .	233,614	244,920	258,963	325,110	414,769	421,425
Ferro-chrome .. .. .	2,782	1,150	4,311	10,165	10,077	10,239
Germany (Federal)—						
Ore .. .. .	303,459	280,164	355,622	480,869	483,693	491,455
Chromium metal .. ..	41	89	234	377	123	125
Germany (East)—						
Ore (b) .. .. .	29,123	34,959	28,693	31,387	41,090	41,749
Hungary—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	52,293	53,132
Ferro-chrome .. .. .	10,254	9,303	8,108	6,837	8,122	8,252
Italy—						
Ore .. .. .	110,486	93,326	62,093	157,922	139,179	141,412
Chromium metal .. ..	32	58	77	72	111	113
Ferro-chrome .. .. .	24,291	23,336	19,886	25,525	30,279	30,765
Netherlands—						
Ore .. .. .	3,690	5,858	3,236	4,069	5,511	5,600
Chromium metal .. ..	6	9	16	30	42	43
Ferro-chrome .. .. .	2,551	1,106	2,263	2,286	2,607	2,649
Norway—						
Ore .. .. .	68,786	62,021	68,517	93,769	77,357	78,598
Poland—						
Ore .. .. .	141,928	147,865	134,808	159,895	139,258	141,493
Spain—						
Ore .. .. .	28,694	15,736	29,030	44,664	57,986	58,911
Ferro-chrome .. .. .	2,342	1,485	2,420	6,176	3,582	3,640

(a) Years ended March 31 following that stated.

 (b) Cr<sub>2</sub>O<sub>3</sub> content.

## IMPORTS OF CHROME ORE, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Ore .. .. .	156,276	138,496	147,077	181,070	193,793	196,903
Chromium metal .. .. .	150	226	174	211	125	127
Ferro-chrome .. .. .	16,889	13,744	18,651	30,108	20,811	21,145
Yugoslavia—						
Ore .. .. .	39,534	53,111	74,295	65,428	68,890	69,996
South Africa—						
Ore .. .. .	96,379	29,401	22,744	31,835	21,630	21,977
Mexico—						
Ferro-chrome .. .. .	318	379	491	816	1,514	1,538
United States—						
Ore .. .. .	1,664,643	1,107,734	968,439	987,492	1,254,937	1,275,075
<i>(Cr<sub>2</sub>O<sub>3</sub> content)</i> .. .. .	750,760	505,482	451,829	451,782	581,770	591,106
Ferro-chrome .. .. .	87,500	51,324	53,407	55,041	36,879	37,471
<i>(Cr content)</i> .. .. .	59,151	34,351	35,615	27,450	23,165	23,537
Metal .. .. .	2,221	1,084	1,219	1,331	1,689	1,716
Brazil—						
Ore .. .. .	2,005	6,116	7,068	7,208	8,115	8,245
Ferro-chrome .. .. .	1,174	777	1,573	1,433	1,639	1,665
Chile—						
Ferro-chrome .. .. .	<i>n.a.</i>	269	195	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Ore .. .. .	866	49	—	<i>n.a.</i>	980	996
Japan—						
Ore .. .. .	415,210	586,285	625,817	721,262	1,131,436	1,149,592
Ferro-chrome .. .. .	197	6,247	3,430	9,545	25,141	25,544
Turkey—						
Ferro-chrome .. .. .	—	19	25	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

# COAL, COKE AND BY-PRODUCTS

## PRODUCTION OF COAL (Including Brown Coal and Lignite)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
<b>Mined—</b>						
Anthracite .. ..	2,800,000	2,671,000	2,391,000	2,178,000	2,099,000	2,133,000
Bituminous .. ..	164,755,900	162,388,000	154,833,100	142,078,200	132,427,100	134,552,500
<b>Opencast—</b>						
Anthracite .. ..	1,610,000	1,375,800	1,507,000	1,396,000	1,527,000	1,551,000
Bituminous .. ..	5,413,700	5,708,900	5,305,600	4,866,000	6,196,600	6,296,100
<b>Northern Ireland—</b>						
Bituminous .. ..	3,630	2,024	<i>n.a.</i>	—	<i>n.a.</i>	<i>n.a.</i>
<b>Nigeria—</b>						
Sub-bituminous ..	630,125	200,000	—	15,700	58,788	59,732
<b>Rhodesia—</b>						
Bituminous (a) ..	3,008,812	3,019,198	3,092,046	3,397,925	3,120,741	3,170,820
<b>Swaziland—</b>						
Anthracite .. ..	65,705	76,730	87,398	102,608	121,004	122,946
<b>Tanzania—</b>						
Bituminous .. ..	2,488	1,688	3,310	2,519	2,622	2,664
<b>Zambia—</b>						
Bituminous .. ..	112,324	387,000	565,000	390,982	613,400	623,200
<b>Canada—</b>						
Bituminous .. ..	6,005,106	5,779,154	5,151,100	4,872,162	7,914,971	8,042,006
Sub-bituminous ..	2,310,433	2,369,015	2,651,389	2,852,636	3,500,184	3,556,362
Lignite .. ..	1,855,504	1,783,022	2,009,124	1,803,665	3,409,992	3,464,722
<b>India—</b>						
Bituminous .. ..	66,890,000	67,145,000	69,696,000	74,220,000	71,369,000	72,514,000
Lignite .. ..	2,528,000	2,882,000	4,061,000	4,122,000	3,490,000	3,545,000
<b>Pakistan—</b>						
Lignite .. ..	1,280,000	1,320,000	1,254,000	1,280,000	<i>n.a.</i>	<i>n.a.</i>
<b>Australia—</b>						
Semi-anthracite ..	46,000	38,000	31,000	15,000	1,000	1,000
Bituminous .. ..	30,081,000	31,299,000	36,755,000	41,674,000	45,335,000	46,063,000
Sub-bituminous ..	3,244,000	3,370,000	3,486,000	3,675,000	3,428,000	3,483,000
Brown coal .. ..	21,782,977	23,384,000	22,974,000	22,911,000	23,821,000	24,203,000
<b>New Zealand—</b>						
Anthracite .. ..	218	183	5	—	—	—
Bituminous .. ..	632,269	584,996	571,912	480,125	446,215	453,377
Sub-bituminous ..	1,796,643	1,617,410	1,483,467	1,677,956	1,714,405	1,741,921
Lignite .. ..	165,339	166,635	169,184	168,526	187,880	190,895
<b>TOTAL .. ..</b>	<b>317,000,000</b>	<b>317,000,000</b>	<b>317,000,000</b>	<b>313,000,000</b>	<b>312,000,000</b>	<b>317,000,000</b>
<b>Irish Republic—</b>						
Anthracite .. ..	138,250	113,675	106,132	88,830	78,480	79,740
including dust ..	62,746	62,220	57,639	61,880	74,050	75,238
Semi-bituminous ..						
<b>OTHER COUNTRIES</b>						
<b>Albania—</b>						
Brown coal and lignite ..	344,000	335,000	423,000	400,000	<i>n.a.</i>	<i>n.a.</i>
<b>Austria—</b>						
Bituminous .. ..	20,173	13,670	—	—	—	—
Brown coal .. ..	5,199,547	4,531,252	4,111,000	3,780,084	3,611,602	3,669,558
<b>Belgium—</b>						
Anthracite .. ..	} 17,222,932	16,175,276	14,572,305	12,991,524	11,184,000	11,364,000
Bituminous .. ..						

(a) Sales for years ended August 31 of that stated.

## PRODUCTION OF COAL (cont.)

Producing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Bulgaria—						
Anthracite and bituminous .. ..	483,000	460,000	432,000	423,000	391,000	397,000
Brown coal and lignite..	24,264,000	28,000,000	27,834,341	28,156,000	28,398,000	28,854,000
Czechoslovakia—						
Bituminous .. ..	26,309,000	25,536,000	25,518,000	26,640,000	27,610,000	28,053,000
Brown coal .. ..	68,752,000	66,120,000	69,716,000	74,073,000	76,775,000	78,007,000
Lignite .. ..	4,186,000	4,116,000	3,986,000	4,011,000	3,716,000	3,776,000
Denmark—						
Lignite .. ..	1,951,000	1,281,000	r 748,000	424,000	133,000	135,000
France—						
Anthracite and bituminous .. ..	49,542,834	46,872,414	41,249,000	39,943,000	36,764,000	37,354,000
Lignite .. ..	2,523,340	2,883,744	3,170,000	2,903,000	2,741,300	2,785,300
Germany—						
Federal Republic (b)—						
Anthracite .. ..	8,798,791	} 110,293,592	110,249,187	109,866,800	109,513,795	111,270,760
Bituminous (a) ..	115,209,704					
Pechkohle .. ..	1,141,435	876,272	820,836	750,625	660,220	670,815
Brown coal .. ..	96,540,870	95,239,053	99,917,801	105,728,853	106,066,242	107,767,897
East Germany—						
Bituminous .. ..	1,956,000	1,761,000	1,600,000	1,500,000	1,028,000	1,044,000
Brown coal .. ..	245,107,000	238,205,000	243,210,000	250,532,000	256,467,000	260,582,000
Greece—						
Lignite .. ..	4,889,844	r 5,172,000	5,638,000	6,626,000	7,657,000	7,780,000
Hungary—						
Bituminous .. ..	4,291,000	3,989,000	4,175,000	4,035,000	4,134,000	4,200,000
Brown coal .. ..	21,222,000	19,282,000	19,567,000	19,094,000	18,700,000	19,000,000
Lignite .. ..	4,355,000	3,332,000	3,041,000	2,953,000	4,500,000	4,600,000
Italy—						
Anthracite .. ..	84	—	—	—	—	—
Bituminous .. ..	411,203	403,926	359,364	297,909	290,815	295,482
Brown coal .. ..	r 1,058,903	2,166,464	1,701,153	1,902,671	1,371,266	1,393,271
Netherlands—						
Bituminous and anthracite .. ..	9,893,000	7,938,000	6,557,000	5,468,000	4,439,000	4,510,000
Poland—						
Bituminous .. ..	120,000,000	121,900,000	126,602,000	132,880,000	137,790,000	140,000,000
Brown coal .. ..	24,121,000	23,544,000	26,453,000	30,377,000	32,300,000	32,800,000
Portugal—						
Anthracite .. ..	411,585	435,735	391,000	409,958	266,612	270,890
Brown coal .. ..	49,926	37,996	30,130	7,793	—	—
Roumania—						
Anthracite and bituminous .. ..	(e)	(e)	(e)	7,415,000	7,959,000	8,087,000
Lignite .. ..	6,400,000	7,526,000	9,002,000	10,746,000	13,822,000	14,044,000
Brown coal .. ..	(d)6,838,000	(d)7,256,000	(d)7,749,000	689,000	693,000	704,000
Spain—						
Anthracite .. ..	2,670,000	2,725,000	2,817,000	2,756,000	2,826,531	2,871,889
Bituminous .. ..	9,970,000	9,443,000	9,311,000	8,661,000	7,692,014	7,815,448
Lignite .. ..	2,612,000	2,624,000	2,787,000	2,657,000	2,781,555	2,826,191
Spitzbergen—						
Bituminous—						
Norwegian mines ..	426,912	419,882	340,804	379,178	458,005	465,355

(a) Including Stockheim hard coal.

(b) Excluding production from "small mines", reported as follows (long tons):

Hard coal; 1966—276,976; 1967—217,024; 1968—144,813; 1969—147,847; 1970—127,200 (129,200 tonnes);

(c) Estimated.

(d) Including anthracite and bituminous.

(e) Included with brown coal.



PRODUCTION OF COAL (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES (cont.)</b>						
Sweden—						
Bituminous .. ..	39,500	11,200	19,500	21,357	<i>n.a.</i>	<i>n.a.</i>
U.S.S.R.—						
Bituminous and anthracite .. ..	432,234,000	439,000,000	440,843,000	451,964,000	425,881,000	432,715,000
Lignite .. ..	144,121,000	149,000,000	135,764,000	137,704,000	142,459,000	144,745,000
Yugoslavia—						
Bituminous .. ..	1,115,000	895,000	822,000	671,000	633,000	643,000
Brown coal and lignite	27,715,000	25,154,000	25,488,000	25,407,000	27,340,000	27,779,000
Algeria (Sahara)—						
Bituminous and anthracite .. ..	44,000	17,000	<i>r</i> 18,300	27,000	12,400	12,600
Congo (Kinshasa)—						
Bituminous .. ..	108,000	131,000	69,800	64,200	100,100	101,700
Egypt—						
Bituminous .. ..	( <i>c</i> ) 20,000	<i>n.a.</i>	<i>n.a.</i>	4,000	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Anthracite .. ..	444,000	474,000	444,000	391,000	426,000	433,000
Mozambique—						
Bituminous .. ..	267,000	278,000	309,000	272,417	345,472	351,016
South Africa—						
Anthracite .. ..	1,059,838	1,259,387	1,343,760	1,517,001	1,651,308	1,677,807
Bituminous .. ..	46,124,711	47,262,423	49,495,100	50,402,116	52,097,908	52,933,925
Greenland—						
Bituminous .. ..	33,000	31,000	<i>r</i> 27,000	21,000	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Bituminous .. ..	2,068,000	2,125,000	2,500,000	2,750,000	2,431,000	2,470,000
United States—						
Anthracite .. ..	11,554,700	10,942,913	10,233,000	9,351,000	8,687,000	8,826,000
Bituminous .. ..	473,214,822	489,407,000	482,000,000	495,976,000	533,008,000	541,557,000
Lignite .. ..	3,464,829	4,009,000	4,370,000	4,476,000	5,323,000	5,408,000
Argentina—						
Lignite .. ..	350,971	398,396	464,678	514,000	606,000	616,000
Brazil—						
Bituminous and lignite	3,327,031	4,039,301	4,751,345	5,046,372	5,089,994	5,171,673
Chile—						
Bituminous .. ..	1,626,124	1,472,434	1,586,000	1,676,989	1,490,553	1,514,472
Columbia—						
Bituminous .. ..	<i>a</i> 2,500,000	3,000,000	3,100,000	3,317,000	3,317,000	3,265,000
Peru—						
Anthracite .. ..	8,038	12,351	7,372	7,468	<i>n.a.</i>	<i>n.a.</i>
Bituminous .. ..	139,681	151,824	150,696	151,745	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Bituminous .. ..	33,536	33,914	28,459	31,971	38,000	39,000
Afghanistan ( <i>b</i> )—						
Bituminous .. ..	161,600	151,000	124,800	136,200	<i>n.a.</i>	<i>n.a.</i>
Burma .. ..	10,000	15,000	15,000	15,000	<i>n.a.</i>	<i>n.a.</i>
China ( <i>c</i> ) .. ..	320,000,000	220,000,000	300,000,000	330,000,000	350,000,000	360,000,000
Formosa—						
Bituminous .. ..	4,935,335	4,998,000	4,935,134	4,572,086	4,402,815	4,473,467
Indonesia—						
Bituminous .. ..	314,778	205,969	172,827	188,000	172,000	175,000
Iran ( <i>b</i> )—						
Bituminous .. ..	300,000	300,000	300,000	300,000	400,000	400,000
Japan—						
Anthracite .. ..	1,588,000	1,492,000	1,464,000	1,205,000	} 39,100,000	} 39,700,000
Bituminous .. ..	48,948,000	45,733,000	43,962,000	42,478,000		
Lignite .. ..	445,000	359,000	328,725	245,000		

(a) Estimated.

(b) Years ended March 20 following that stated.

(c) United States Bureau of Mines estimate.

PRODUCTION OF COAL (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Korea (South)—						
Anthracite .. ..	11,429,900	12,239,800	10,080,242	10,110,752	12,198,000	12,394,000
Korea (North) .. ..	19,200,000	<i>a</i> 20,000,000	<i>a</i> 23,000,000	<i>a</i> 23,000,000	<i>a</i> 23,100,000	<i>a</i> 23,500,000
Mongolia .. ..	<i>(b)</i> 1,000,000	1,040,000	1,230,000	1,300,000	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Bituminous .. ..	74,134	68,651	31,642	52,499	41,731	42,402
Thailand—						
Lignite .. ..	168,429	330,000	300,000	342,000	393,600	399,900
Turkey—						
Bituminous .. ..	<i>(b)</i> 7,300,000	7,350,000	7,387,623	7,620,983	7,486,981	7,607,125
Lignite .. ..	6,467,366	6,544,982	7,951,115	8,403,458	8,575,034	8,712,638
Vietnam (North)—						
Anthracite .. ..	<i>(a)</i> 3,500,000	<i>(a)</i> 3,000,000	<i>(a)</i> 3,300,000	<i>(a)</i> 3,300,000	<i>n.a.</i>	<i>n.a.</i>
<b>TOTAL .. ..</b>	<b>2,470,000,000</b>	<b>2,360,000,000</b>	<b>2,380,000,000</b>	<b>2,510,000,000</b>	<b>2,570,000,000</b>	<b>2,620,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,790,000,000</b>	<b>2,677,000,000</b>	<b>2,702,000,000</b>	<b>2,826,000,000</b>	<b>2,887,000,000</b>	<b>2,935,000,000</b>

(a) Estimated.

(b) United States Bureau of Mines' estimate.

PRODUCTION OF COKE

Producing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
Great Britain—						
Gas-works—coke (a) ..	7,202,000	6,198,000	4,594,000	2,986,000	1,849,000	1,879,000
breeze (a) ..	1,800,000	1,591,000	1,191,000	778,000	452,000	459,000
Coke-ovens—coke ..	16,117,000	15,322,000	16,247,000	16,575,000	16,330,000	16,592,000
breeze ..	1,365,000	1,317,000	1,418,000	1,464,000	1,524,000	1,548,000
Rhodesia ..	(f) 200,163	178,529	205,998	245,131	(e) 221,500	(e) 225,054
Canada (c) ..	3,951,831	3,955,624	4,741,752	4,466,317	5,060,910	5,142,137
Hong Kong—						
Gas-works (c) ..	10,000	9,000	n.a.	n.a.	n.a.	n.a.
India—						
Gas-works ..	64,434	65,974	n.a.	n.a.	n.a.	n.a.
Hard ..	8,030,645	7,470,000	n.a.	n.a.	n.a.	n.a.
Soft ..	2,834,721	2,756,000	n.a.	n.a.	n.a.	n.a.
Australia—						
Coke—gas-works (d) ..	559,301	551,326	507,253	404,887	n.a.	n.a.
coke-ovens ..	3,178,856	r 3,635,000	3,891,000	4,381,000	4,899,000	4,978,000
Breeze (d) ..	492,801	521,426	607,099	630,390	n.a.	n.a.
New Zealand (b)—						
Gas-works ..	55,000	61,000	61,000	52,000	n.a.	n.a.
Irish Republic—						
Gas-works (c) ..	103,585	88,748	53,751	35,387	n.a.	n.a.
OTHER COUNTRIES						
Austria—						
Gas-works ..	220,000	210,000	195,000	83,000	—	—
Coke-ovens ..	1,451,000	1,400,000	1,600,000	1,700,000	1,740,000	1,768,000
Belgium—						
Coke-ovens ..	6,851,000	6,744,000	7,129,000	7,135,500	6,956,000	7,068,000
Bulgaria ..	787,630	790,000	804,000	807,000	824,000	837,000
Czechoslovakia—						
Hard coke ..	9,316,000	9,160,000	9,382,000	9,883,000	10,100,000	10,262,000
Brown-coal coke ..	1,745,000	1,783,000	1,779,000	1,524,000	1,386,000	1,408,000
Denmark (gas-works) ..	287,000	242,000	289,000	158,000	180,000	183,000
Finland ..	151,000	134,000	118,000	134,000	177,000	119,000
France—						
Gas-works (e) ..	14,200	8,700	8,400	8,070	10,000	10,000
Coke-ovens ..	12,743,534	12,237,000	12,145,000	13,390,000	13,928,000	14,152,000
Semi-coke ..	244,714	194,000	160,000	65,000	n.a.	n.a.
Germany (Federal)—						
Gas-works ..	3,520,000	2,824,000	2,290,000	2,368,000	2,592,000	2,634,000
Coke-ovens—hard coke	39,260,000	34,688,000	35,671,000	38,307,000	39,181,000	39,810,000
do. brown-coal coke ..	534,000	388,000	—	—	—	—
Germany (East)—						
Hard coke ..	3,141,000	2,875,000	2,511,000	2,353,000	2,531,000	2,572,000
Brown-coal coke ..	7,207,000	6,848,000	6,687,000	6,331,000	6,177,000	6,276,000
Greece (gas-works) ..	17,341	17,000	15,000	13,800	15,183	15,427
Hungary—						
Gas-works ..	450,000	n.a.	430,000	424,000	393,000	399,000
Coke-ovens—hard coke	771,000	639,000	492,000	504,000	654,000	665,000
do. brown-coal coke	42,000	n.a.	n.a.	n.a.	n.a.	n.a.
Italy—						
Gas-works ..	334,236	312,278	264,491	190,887	123,614	125,598
Coke-ovens ..	6,168,226	6,147,479	6,373,720	6,565,021	6,934,309	7,045,584
Luxemburg—						
Gas-works ..	n.a.	10,000	10,000	10,000	—	—

(a) Excluding coke used for heating retorts.

(e) Sales.

(b) Sales for year ended March 31 of the year following that stated. (f) Year ended August 31

(c) Including coke-breeze.

of that stated.

(d) Years ended June 30 of that stated.

PRODUCTION OF COKE (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Netherlands—						
Gas-works .. ..	59,000	17,322	3,000	3,000	—	—
Coke-ovens .. ..	3,767,500	3,261,700	2,889,000	1,978,000	1,965,000	1,997,000
Norway—						
Coke-ovens .. ..	261,705	284,413	305,466	314,987	306,429	311,346
Poland—						
Gas-works .. ..	1,268,600	1,255,800	1,271,600	1,326,000	1,315,200	1,336,300
Coke-ovens .. ..	13,263,000	13,704,000	14,187,000	14,585,000	14,968,000	15,208,000
Portugal (gas-works) ..	10,000	10,000	10,000	10,000	—	—
Roumania—						
Coke-ovens .. ..	1,086,000	1,113,000	1,115,000	924,000	1,053,000	1,070,000
Spain—						
Gas-works .. ..	76,600	54,140	17,616	16,043	9 000	9,000
Coke-ovens .. ..	2,755,000	2,916,000	3,466,000	3,642,000	3,948,202	4,011,559
Sweden (a) .. ..	1,011,331	997,604	1,060,000	910,987	n.a.	n.a.
Switzerland—						
Gas-works .. ..	402,161	348,340	300,183	374,887	186,038	189,023
U.S.S.R. (a) .. ..	67,418,000	68,000,000	70,376,000	72,372,000	74,213,000	75,404,000
Yugoslavia—						
Gas-works .. ..	10,617	7,129	2,000	—	—	—
Coke-ovens .. ..	1,207,000	1,200,000	1,215,000	1,207,000	1,287,000	1,308,000
Libya—						
Gas-works (b) .. ..	5,000	5,000	5,000	5,000	5,000	5,000
South Africa—						
Gas-works .. ..	104,000	114,000	95,000	172,000	n.a.	n.a.
Coke-ovens .. ..	3,197,000	4,055,000	3,651,000	(c)3,248,000	n.a.	n.a.
Mexico (coke-ovens) ..	851,757	1,014,177	1,135,000	1,122,777	1,279,028	1,299,553
United States—						
Coke-ovens—						
Coke .. ..	58,892,230	56,942,000	56,141,000	57,142,000	58,620,000	59,560,000
Breeze and screenings	3,582,464	3,593,000	3,638,000	3,929,000	4,165,000	4,232,000
Beehive—						
Coke .. ..	1,287,761	720,000	692,000	634,000	617,000	627,000
Breeze and screenings	32,317	19,000	22,000	18,000	54,000	55,000
Other coke .. ..	150,000	146,000	155,000	n.a.	n.a.	n.a.
Brazil—						
Gas works .. ..	220,000	202,000	195,000	171,000	n.a.	n.a.
Coke-ovens .. ..	932,000	1,300,000	1,400,000	1,500,000	n.a.	n.a.
Colombia .. ..	318,285	428,000	435,000	465,450	498,031	506,019
Peru .. ..	16,290	34,285	41,069	46,962	n.a.	n.a.
Uruguay (gas-works)—						
Coke .. ..	20,648	20,946	19,343	16,038	17,111	17,386
Breeze .. ..	1,788	1,633	2,694	1,767	4,650	4,725
China (c) .. ..	17,000,000	13,000,000	15,000,000	17,000,000	18,000,000	18,000,000
Formosa .. ..	253,180	248,336	251,623	249,000	275,000	279,000
Japan—						
Gas-works .. ..	3,654,000	4,100,000	} 30,123,000	35,453,000	42,200,000	43,000,000
Coke-ovens .. ..	} 16,763,000	21,000,000				
Beehive, etc. .. ..						
Korea (North) (c) ..	1,800,000	1,800,000	2,000,000	2,000,000	n.a.	n.a.
Turkey—						
Gas-works .. ..	175,000	178,000	n.a.	n.a.	n.a.	n.a.
Coke-ovens .. ..	1,102,000	1,265,000	1,407,500	1,420,000	1,488,000	1,512,000
Semi-coke .. ..	71,000	71,000	n.a.	n.a.	n.a.	n.a.

(a) Including coke-breeze.

(c) United States Bureau of Mines' estimate.

(b) Estimated.

PRODUCTION OF BRIQUETTES

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Great Britain (a) ..	2,379,000	2,647,000	2,859,000	3,193,000	3,295,000	3,348,000
Canada .. .. .	51,375	37,050	39,510	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Australia—						
Brown-coal briquettes..	1,859,000	1,844,000	1,552,000	1,464,000	1,426,000	1,449,000
New Zealand .. .. .	18,520	19,369	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Belgium .. .. .	946,073	854,926	810,029	811,000	733,000	745,000
Czechoslovakia—						
Brown-coal briquettes	782,000	899,000	1,083,000	1,287,000	1,335,000	1,356,000
France .. .. .	4,981,534	4,776,505	4,492,000	4,131,000	4,234,000	4,302,000
Germany (Federal)—						
Coal briquettes .. .. .	3,941,825	3,521,689	3,470,644	3,845,005	3,666,245	3,725,077
Brown-coal briquettes ..	11,641,945	10,887,781	10,193,599	10,332,793	9,420,106	9,571,271
Germany (East)—						
Brown-coal briquettes ..	58,487,000	55,201,000	55,498,000	55,970,000	56,176,000	57,078,000
Hungary—						
Coal briquettes .. .. .	1,331,000	1,051,000	1,218,000	1,290,000	1,440,000	1,463,000
Brown coal semi-coke briquettes .. .. .						
Netherlands—						
Coal briquettes .. .. .	1,108,500	1,073,966	1,036,000	1,028,000	872,000	886,000
Brown-coal briquettes ..	42,000	28,000	20,000	—	—	—
Poland—						
Coal briquettes .. .. .	562,000	544,000	577,000	1,219,000	1,472,000	1,496,000
Brown-coal briquettes ..	359,000	343,000	341,000	343,000	326,000	331,000
Portugal .. .. .	37,518	36,754	29,501	32,004	38,680	39,301
Spain .. .. .	600,598	330,319	133,264	150,260	192,000	195,000
United States (c) ..	(b) 300,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Production at manufactured fuel plants.

(b) Estimated.

(c) In addition packaged fuel produced was as follows (long tons):

1966—(b) 8,000; 1967—*n.a.*; 1968—*n.a.*; 1969—*n.a.*; 1970—*n.a.*

PRODUCTION OF COAL BY-PRODUCTS\*

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
Tar (crude) distilled ..	2,341,000	2,152,000	} <i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar (refined) .. ..	563,000	580,000				
Pitch .. .. .	377,000	308,000				
Motor benzol .. ..	93,300	69,000				
Other refined light oils ..	219,000	221,000				
Creosote-pitch mixture	846,000	737,000				
Creosote oil .. .. .	400,000	380,000				
Naphthalene (crude) ..	81,100	77,700				
Naphthalene (refined)	3,600	7,000				
Pyridine bases .. .. .	4,200	4,000				
Natural phenol .. .. .	18,200	17,300				
Refined cresylic acid ..	64,200	62,800				
Anthracene 40-50% ..	3,500	3,600				
<b>Rhodesia—</b>						
Tar (crude) (c) .. .. .	3,342	4,540	4,637	3,175	4,478	4,536
Ammonia liquor (c) ..	621	964	1,123	1,266	756	768
<b>India (coke-ovens)—</b>						
Tar .. .. .	241,099	203,688	} <i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Benzol .. .. .	9,269	9,725				
Benzene .. .. .	18,081	9,717				
Toluol .. .. .	205	206				
Toluene .. .. .	1,976	1,652				
Xylene .. .. .	125	1,030				
Solvent naphtha .. ..	1,603	1,628				
Pitch .. .. .	67,219	88,577				
Naphthalene .. .. .	2,850	3,661				
Ammonium sulphate ..	228,985	59,307				
Light oil .. .. .	6,167	3,045				
Middle oil .. .. .	3,060	2,403				
Heavy oil (230-270°C.)	1,182	2,823				
Anthracene oil .. .. .	5,509	7,887				
<b>Australia—</b>						
Tar (crude) (a) .. .. .	289,430	274,774	269,508	258,000	<i>n.a.</i>	<i>n.a.</i>
Tar (refined) (a) .. ..	228,290	183,021	202,514	180,000	<i>n.a.</i>	<i>n.a.</i>
<b>New Zealand (b)—</b>						
Tar (gas-works) .. .. .	12,300	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Irish Republic (gas-works)—</b>						
Tar .. .. .	10,038	9,997	10,083	4,420	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Belgium—</b>						
Tar (crude) .. .. .	251,530	250,098	257,951	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>France—</b>						
Tar (crude) .. .. .	593,853	554,507	537,268	538,541	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	125,443	120,071	116,123	121,954	<i>n.a.</i>	<i>n.a.</i>
Benzol (crude) .. .. .	151,893	143,064	140,025	149,356	<i>n.a.</i>	<i>n.a.</i>
Pitch .. .. .	224,964	199,027	166,853	183,898	<i>n.a.</i>	<i>n.a.</i>
Naphthalene (crude) ..	9,954	6,647	6,351	5,624	<i>n.a.</i>	<i>n.a.</i>

\*Some of the products are derived from the crude products shown. Duplication, therefore, is unavoidable in many cases.

See page 86 for conversion rates.

See Nitrogen Compounds (pages 224-227) for total production of ammonium sulphate.

(a) Years ended June 30 of the year stated.

(b) Sales for years ended March 31 of the year following that stated.

(c) Sales for years ended August 31 of that stated.

## PRODUCTION OF COAL BY-PRODUCTS (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Germany (Federal)—						
Tar (crude) .. ..	1,758,640	1,571,333	1,580,609	1,631,334	1,706,041	1,733,418
Benzol (crude) .. ..	505,202	448,841	456,702	466,451	456,464	463,789
Hungary—						
Pitch .. ..	35,952	16,000	n.a.	n.a.	n.a.	n.a.
Benzol .. ..	6,793	7,506	9,191	n.a.	n.a.	n.a.
Creosote .. ..	7,301	n.a.	n.a.	n.a.	n.a.	n.a.
Italy—						
Tar .. ..	249,582	239,967	247,300	255,355	256,217	260,329
Ammonium sulphate .. ..	59,664	55,504	n.a.	n.a.	n.a.	n.a.
Benzol (crude) .. ..	58,685	58,062	59,704	58,348	50,971	51,788
Naphthalene (crude) .. ..	11,459	10,572	13,987	12,398	13,220	13,432
Distillates .. ..	63,089	70,868	78,055	81,975	82,273	83,593
Benzol (refined) .. ..	27,531	20,305	23,246	21,061	19,733	20,050
Toluol and xylol .. ..	8,468	8,167	8,716	6,398	4,844	4,922
Pitch .. ..	80,605	81,816	91,890	96,999	101,146	102,769
Solvent naphtha .. ..	1,167	1,286	1,102	790	377	383
Poland—						
Tar (coke-ovens) .. ..	578,900	590,800	612,100	632,000	644,000	654,000
Tar (gas-works) .. ..	90,300	88,200	92,300	96,800	92,300	93,800
Ammonium sulphate (coke-ovens) .. ..	148,100	150,600	155,300	156,700	156,000	159,000
Benzol (coke-ovens) .. ..	180,200	181,900	192,500	196,000	196,000	199,000
Spain—						
Tar .. ..	140,908	129,506	149,956	150,156	164,796	167,441
Pitch .. ..	40,575	36,778	42,909	48,136	49,812	50,611
Benzol .. ..	53,740	54,372	66,428	70,655	75,656	76,870
Benzene .. ..	14,992	15,096	10,467	8,628	12,581	12,783
Toluol .. ..	1,926	2,246	1,427	1,084	774	786
Toluene .. ..	1,376	1,215	515	388	522	530
Xylene .. ..	610	550	517	647	649	660
Solvent naphtha .. ..	73	57	37	127	379	385
Anthracene .. ..	6,325	10,611	12,009	13,800	13,021	13,230
Naphthalene .. ..	6,589	5,130	6,595	9,497	9,607	9,761
Sweden—						
Tar (crude) .. ..	43,235	43,284	42,182	37,019	n.a.	n.a.
Pitch .. ..	16	22	13	12	n.a.	n.a.
Benzol, toluol, etc. .. ..	10,525	9,118	9,687	8,480	n.a.	n.a.
Distillates, etc. .. ..						
Switzerland—						
Tar (crude) (gas-works) .. ..	23,965	19,683	15,812	13,833	10,030	10,191
Yugoslavia—						
Benzol .. ..	11,786	12,134	10,983	10,526	9,514	9,667
Mexico—						
Benzol .. ..	5,420	6,762	n.a.	n.a.	n.a.	n.a.
Ammonium sulphate .. ..	9,388	9,481	n.a.	n.a.	n.a.	n.a.
Creosote .. ..	9,950	10,415	n.a.	n.a.	n.a.	n.a.
United States—						
Coke-ovens—						
Tar (crude) .. ..	3,426,783	3,334,000	3,248,530	3,285,000	3,249,000	3,301,000
Pitch .. ..	932,449	892,000	n.a.	n.a.	n.a.	n.a.
Sulphate equivalent of ammonia pro- duced (a) .. ..	769,649	745,000	685,000	654,000	n.a.	n.a.
Benzol .. ..	367,411	289,000	295,000	325,000	298,000	303,000
do. motor .. ..	9,970	11,000	11,000	11,000	13,000	13,000
Toluol and xylol .. ..	94,492	81,000	82,000	81,000	70,000	71,000
Solvent naphtha .. ..	10,130	12,000	12,000	11,000	12,000	12,000
Other light products .. ..	21,161	28,000	n.a.	n.a.	n.a.	n.a.

(a) Actual ammonium sulphate produced was as follows (long tons):

1966—681,938; 1967—658,000; 1968—626,000; 1969—601,000; 1970—569,000 (578,000 tonnes).

## PRODUCTION OF COAL BY-PRODUCTS (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States (cont.)—</b>						
All sources (a)—						
Tar (crude) .. ..	3,426,783	3,334,000	3,248,530	3,283,000	<i>n.a.</i>	<i>n.a.</i>
Crude light oil .. ..	875,465	840,000	796,290	863,033	813,046	826,087
<b>Uruguay (gas-works)—</b>						
Tar .. ..	1,943	2,078	1,961	1,845	1,364	1,386
Benzol .. ..	142	207	161	130	142	144
<b>Japan—</b>						
Tar .. ..	1,475,000	1,666,000	1,581,756	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Benzol (crude) .. ..	395,915	459,475	<i>n.a.</i>	11,102	<i>n.a.</i>	<i>n.a.</i>
do. (other) .. ..	520,876	642,211	848,538	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Creosote oil .. ..	324,651	349,985	380,763	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Turkey—</b>						
Road tar .. ..	56,678	61,015	61,288	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Pitch .. ..	2,370	3,180	5,473	11,102	<i>n.a.</i>	<i>n.a.</i>
Benzol .. ..	7,909	8,413	7,223	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Toluol and xylol .. ..	<i>n.a.</i>	<i>n.a.</i>	1,291	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Solvent naphtha .. ..	107	91	59	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Creosote .. ..	<i>n.a.</i>	<i>n.a.</i>	2,433	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Naphthalene .. ..	840	1,205	602	1,240	<i>n.a.</i>	<i>n.a.</i>

The following rates have been used for conversion of Imperial gallons to long tons. Conversion factors for tonnes are shown in brackets: Tar, 195 (192); Benzol, 250 (246); Creosote, 210 (207); Motor fuel, 310 (305); Toluol, 255 (251); Solvent naphtha, 260 (256); Phenol, 210 (207); cresylic acid, 214 (211).

(a) Including products obtained from coke-ovens except ammonium sulphate.



## EXPORTS OF COAL, COKE AND BY-PRODUCTS\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Anthracite—						
smalls and graded ..	652,456	573,746	634,129	928,989	1,302,172	1,323,072
large .. .. .	24,401	11,415	26,661	20,652	608	618
other .. .. .	99,623	53,286	158,366	210,167	97,274	98,835
Bituminous—						
smalls and graded ..	1,676,166	994,939	1,617,925	1,997,127	1,717,793	1,745,364
unscreened .. .. .	42,235	25,077	40,446	13,533	<i>n.a.</i>	<i>n.a.</i>
large .. .. .	118,587	109,053	109,445	118,960	104,269	105,943
other .. .. .	155,051	82,103	74,674	98,355	87,297	88,698
Coke, gas .. .. .	384,183	332,669	320,204	268,162	183,541	186,487
do. other .. .. .	584,182	426,818	519,001	736,057	846,778	860,369
Manufactured fuel ..	14,318	14,450	56,483	93,182	126,791	128,826
Tar .. .. .	76,848	65,120	48,337	36,921	33,138	33,670
Pitch .. .. .	173,916	147,135	142,862	142,246	126,334	128,362
Channel Islands (Jersey)						
Coke .. .. .	13,274	953	—	—	—	—
Tar .. .. .	2,896	1,304	1,300	—	—	—
Gibraltar—						
Coal (bunkers) (b) ..	5	—	22	—	162	165
Kenya—						
Coal (bunkers) (b) ..	45	10	<i>n.a.</i>	—	8	8
Nigeria—						
Coal .. .. .	240	8	—	—	—	—
Coke .. .. .	869	—	—	—	—	—
Patent fuel .. .. .	1,720	—	—	—	—	—
Canada—						
Coal .. .. .	1,097,161	1,194,958	1,291,976	1,230,243	3,921,050	3,983,971
do. (bunkers) (c) ..	—	—	833	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	69,600	58,296	128,367	243,747	244,545	248,469
Tar and pitch .. .. .	29,948	37,183	72,238	59,895	43,969	44,675
Trinidad and Tobago—						
Coal (bunkers) (b) ..	14	4	—	2	<i>n.a.</i>	<i>n.a.</i>
Ceylon—						
Coal (bunkers) (b) ..	126	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Hong Kong—						
Coke .. .. .	62	180	40	—	—	—
India (d)—						
Coal .. .. .	353,305	278,185	418,449	257,918	405,900	412,414
Coke .. .. .	8,997	9,062	39,463	31,646	117,653	119,541
Tar and pitch .. .. .	4	7	3	32	33	34
Singapore—						
Coke .. .. .	507	942	966	1,347	749	761
Australia (a)—						
Coal .. .. .	7,654,070	8,804,802	10,199,608	13,799,747	17,344,830	17,623,170
do. (bunkers) .. .. .	41	457	345	482	265	269
Coke .. .. .	110,430	80,064	285,138	146,983	447,703	454,887
New Zealand (a)—						
Coal .. .. .	7	4	6	10	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	12	18	29	292	<i>n.a.</i>	<i>n.a.</i>
Tar .. .. .	—	—	—	66	<i>n.a.</i>	<i>n.a.</i>
Irish Republic—						
Anthracite .. .. .	6,293	4,334	3,766	6,411	12,580	12,782
Other coal .. .. .	1,514	2,200	3,631	4,727	55,369	56,258

\*For Ammonium sulphate, etc. see Nitrogen Compounds, pages 228-229.

(a) Years ended June 30 of that stated.

(b) Foreign coal. (See imports.)

(c) Domestic produce. Shipments from mines to ships' bunkers.

(d) Years ended March 31 following that stated.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnage
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Coal .. .. .	17	20	22	22	11	11
Brown coal .. ..	9,274	15,120	9,044	7,374	7,679	7,802
Coke .. .. .	10,433	47,518	122,961	140,203	5,666	5,757
Tar .. .. .	62	1	—	15	—	—
Pitch .. .. .	608	1,026	756	618	1,180	1,199
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Coal .. .. .	1,197,851	1,499,981	1,148,285	908,857	580,701	590,020
Coke .. .. .	411,957	407,867	321,755	374,478	494,423	502,357
Briquettes .. ..	102,034	92,628	98,624	116,981	91,896	93,371
Tar .. .. .	50,670	41,821	31,549	45,858	73,018	74,190
Pitch .. .. .	17,382	57,132	32,549	30,161	18,382	18,677
<b>Czechoslovakia—</b>						
Coal .. .. .	2,044,000	2,291,000	2,382,000	2,612,000	2,746,000	2,790,000
Brown coal .. ..	1,125,000	1,120,000	1,140,000	1,228,000	1,230,000	1,250,000
Coke .. .. .	2,359,000	2,133,000	2,245,000	2,545,000	2,460,000	2,500,000
<b>Denmark—</b>						
Coal .. .. .	6	12	214	57	21	21
Brown coal briquettes	49	1	—	—	—	—
Coke .. .. .	38,858	44,425	78,377	86,684	84,519	85,875
Tar and pitch .. ..	3,598	1,542	2,807	1,396	256	260
<b>France—</b>						
Anthracite .. ..	142,671	187,033	302,809	433,018	464,536	471,990
Bituminous .. ..	543,948	508,918	543,836	651,578	729,876	741,588
Lignite .. .. .	75,729	82,322	28,527	17,003	24,793	25,191
Coke .. .. .	108,194	116,003	182,395	873,966	1,092,128	1,109,653
Briquettes .. ..	20,231	15,388	13,928	42,343	93,926	95,433
Brown coal briquettes	383	180	7	8	611	621
Tar and pitch .. ..	11,822	18,773	26,089	15,527	39,337	39,968
<b>Germany (Federal)—</b>						
Coal .. .. .	15,545,381	17,165,557	19,928,831	17,274,579	15,350,700	15,597,108
do. (bunkers) (a) ..	2,052	1,651	456	n.a.	—	—
Brown coal .. ..	142,941	105,190	90,656	14,691	15,521	15,770
Coke .. .. .	8,173,301	7,501,993	9,119,930	9,427,865	10,053,000	10,213,757
Coal briquettes ..	214,126	169,514	156,183	150,453	304,365	309,249
Brown-coal briquettes	1,071,393	1,034,917	951,082	955,235	935,612	950,626
Tar and pitch .. ..	304,629	313,424	302,596	351,732	335,386	340,768
<b>Germany (East)—</b>						
Coke .. .. .	73,000	66,000	n.a.	n.a.	n.a.	n.a.
Brown coal briquettes	5,172,000	3,886,000	3,894,000	3,453,580	3,726,000	3,786,000
<b>Hungary—</b>						
Coal .. .. .	n.a.	—	n.a.	n.a.	90,070	91,515
<b>Italy—</b>						
Coal (incl. bunkers) ..	3,578	2,690	3,988	2,415	3,422	3,477
Coke .. .. .	151,288	214,737	230,278	339,750	336,622	342,024
Tar .. .. .	560	281	328	433	31	32
Pitch .. .. .	21,116	34,120	24,583	27,050	25,330	25,736
<b>Netherlands—</b>						
Coal .. .. .	1,820,550	1,904,918	1,944,222	1,763,948	1,620,499	1,646,503
Brown coal .. ..	49	20	—	—	8	8
Coke .. .. .	1,873,022	1,966,248	1,473,720	776,112	680,435	691,354
Briquettes .. ..	812,383	730,807	787,960	822,443	678,221	689,105
Brown coal briquettes	20,373	11,815	9,698	294	221	225
Tar .. .. .	27,044	26,535	26,712	26,745	24,294	24,684
Pitch .. .. .	3,891	2,409	122	780	1,375	1,397
<b>Norway—</b>						
Coal .. .. .	128,030	138,141	66,407	61,735	99,842	101,444
Coke .. .. .	48,710	48,023	123,042	62,956	43,999	44,705
Tar .. .. .	17,586	16,040	18,303	12,073	15,613	5,864
Pitch .. .. .	76	17	15	18	11	11

(a) Bunkers for foreign ships only.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Poland—						
Coal .. .. .	22,053,000	23,649,000	25,591,000	25,957,000	28,361,000	28,816,000
Brown coal .. .. .	4,980,000	3,647,000	3,939,000	4,311,000	3,909,000	3,972,000
Coke .. .. .	2,321,000	2,318,000	2,372,000	2,287,000	2,248,000	2,284,000
Pitch .. .. .	3,396	3,203	<i>n.a.</i>	5,602	3,960	4,024
Portugal—						
Coal .. .. .	104	41	44	55	75	75
do. (bunkers) (a) .. .. .	3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2	2
Tar and pitch .. .. .	14	77	13	10	25	25
Spain—						
Anthracite .. .. .	—	60	—	18	200,518	203,736
Bituminous (incl. bunkers) .. .. .	1,416	1,635	1,520	7,604	368,529	374,443
Other coal .. .. .						
Coke .. .. .	11,042	20,498	17,328	458,656	250,863	254,889
Tar and pitch .. .. .	217	177	7,846	4,151	2,923	2,970
Sweden—						
Coal .. .. .	852	716	792	81,797	137,268	139,471
Coke .. .. .	7,610	8,369	8,466	59,294	37,791	38,398
Tar, pitch, etc. . . . .	17,463	30,621	19,291	20,862	21,411	21,755
Switzerland—						
Coal .. .. .	—	—	—	3,911	33,759	34,301
Coke .. .. .	204	22,676	34,996	52,050	28,350	28,805
Briquettes .. .. .	3	3	4	—	1,155	1,174
Tar and pitch .. .. .	58	161	152	55	26	26
U.S.S.R.—						
Anthracite .. .. .	3,029,000	2,931,951	3,147,000	3,981,000	4,232,000	4,300,000
Other coal .. .. .	18,295,000	18,778,000	20,914,000	22,931,000	19,684,000	20,000,000
Coke .. .. .	3,945,000	3,635,000	3,763,000	3,932,900	4,035,000	4,100,000
Pitch .. .. .	59,400	60,726	82,476	73,400	87,300	88,700
Yugoslavia—						
Bituminous .. .. .	84,051	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brown coal .. .. .	4,323	15,810	9,176	11,942	35,382	35,950
Lignite .. .. .	23,475	29,882	21,549	37,387	127,694	129,743
Pitch .. .. .	806	9,014	3,022	2,870	20,796	21,130
Tar .. .. .	—	—	49	74	—	—
Ceuta—						
Coal (bunkers) .. .. .	39	40	305	30	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Anthracite .. .. .	26,700	65,542	55,997	48,967	54,561	55,437
Briquettes .. .. .	990	947	1,013	2,577	4,470	4,542
Mozambique—						
Coal (incl. bunkers) .. .. .	84,555	72,200	67,135	94,622	106,392	108,099
South Africa—						
Coal .. .. .	1,095,644	1,236,675	1,215,129	812,165	1,183,972	1,202,970
Coke .. .. .	1,211	1,305	30,399	11,996	92,711	94,198
Tar and pitch .. .. .	193	53	<i>n.a.</i>	6,512	2,390	2,429
Mexico—						
Coal and coke .. .. .	4	8	2	—	<i>n.a.</i>	<i>n.a.</i>
United States—						
Anthracite .. .. .	683,951	531,069	462,642	560,261	704,906	716,218
Bituminous .. .. .	44,019,991	44,205,697	45,211,839	50,208,813	63,310,544	64,326,517
do. (bunkers) .. .. .	191,531	129,907	96,204	52,814	<i>n.a.</i>	<i>n.a.</i>
Coke (inc. briquettes of coke) .. .. .	984,077	634,268	707,096	1,454,899	2,244,343	2,280,358
Briquettes of coal .. .. .	105,312	106,869	55,979	64,867	61,506	62,493
Tar and pitch .. .. .	102,487	103,071	90,478	107,917	114,495	116,332
Chile—						
Coal (including bunkers)	1,016	788	1,093	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Bunkers for foreign ships only.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Formosa—						
Coal (including bunkers)	15,236	12,168	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Indonesia—						
Coal .. .. .	—	8,169	6,200	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (a)—						
Coal .. .. .	369	151	283	112	84	85
Japan—						
Coal .. .. .	32,542	57,886	25,886	21,965	15,435	15,683
Coke .. .. .	57,525	45,720	61,914	82,606	92,758	94,246
Tar and pitch .. .. .	14,931	13,195	10,135	10,585	9,786	9,943
Korea (South)—						
Anthracite .. .. .	159,898	169,350	222,692	230,714	332,585	337,922
Lebanon—						
Coal and briquettes .. .. .	932	922	944	413	231	235
Coke .. .. .	798	979	1,814	1,568	1,035	1,052
Turkey—						
Coal .. .. .	9,790	2,757	4,331	139,689	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 following that stated.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Coal .. .. .	29,651	6,754	1,907	2,024	77,825	79,074
Coke .. .. .	2,906	246	3,211	670	5,746	5,838
Manufactured fuel .. .. .	209	466			51,456	52,282
Tar .. .. .	10,893	18,126	1,917	13,911	33,109	33,640
Channel Islands—						
Anthracite .. .. .	30,393	56,685	63,182	57,128	16,508	16,773
Bituminous .. .. .	78,654				25,216	25,620
Coke .. .. .	7,757				4,962	5,042
Gibraltar—						
Coal (b) .. .. .	1,688	(a) 25	940	(a) 5	—	—
Malta—						
Coal .. .. .	1,995	1,774	2,668	—	1,160	1,179
Coke .. .. .	673	—	401	—	391	397
Gambia—						
Coal, coke and patent fuel .. .. .	52	1	—	11	—	—
Tar .. .. .	13	16	2	12	4	4
Ghana—						
Coal .. .. .	51,117	28,661	n.a.	18,239	31,953	32,466
Coke and patent fuel .. .. .	1,417	677	302			
Tar .. .. .	27	184	122			
Kenya—						
Coal (b) .. .. .	46,658	48,126	39,651	30,730	80,308	81,597
Coke .. .. .	1,858	1,217	1,351	1,171	1,408	1,431
Tar .. .. .	n.a.	7	1	7	14	14
Malawi—						
Coal .. .. .	78,027	52,732	46,817	31,587	43,296	43,991
Coke .. .. .	n.a.	46	61	12	290	295
Mauritius—						
Coal .. .. .	2,891	301	994	735	452	459
Coke .. .. .	157	297	312	294		
Tar .. .. .	15	11	—	—		
Nigeria—						
Coal, coke and patent fuel .. .. .	12,097	75,434	2,272	4,935	5,197	5,280
Tar .. .. .	587	264	399	322	2,342	2,379
St. Helena—						
Coal .. .. .	40	40	45	60	40	41
Sierra Leone—						
Tar .. .. .	119	141	237	n.a.	n.a.	n.a.
Tanzania—						
Coal .. .. .	135	109	47	115	157	160
Coke .. .. .	160	196	905	327	1,017	1,033
Tar .. .. .	19	15	28	13	16	16
Uganda—						
Coal .. .. .	59	66	70	36	24	24
Coke .. .. .	17	359	348	410	471	479
Tar .. .. .	—	—	—	2	2	2
Zambia—						
Coal .. .. .	892,149	967,452	682,458	670,189	n.a.	n.a.
Coke briquettes .. .. .	69,841	73,095	84,350	78,600	n.a.	n.a.
Tar .. .. .	500	138	27	3	n.a.	n.a.
Canada—						
Anthracite .. .. .	528,097	468,458	384,104	389,301	315,575	320,639
do. dust .. .. .	2,432	868	—	—	—	—
Bituminous .. .. .	14,144,344	13,918,238	14,799,102	15,041,426	16,448,550	16,712,507
Briquettes .. .. .	4,410	7,579	5,412	5,412	9,076	9,222
Coke .. .. .	522,290	345,579	228,040	250,808	352,636	358,295
Tar and Pitch .. .. .	128,234	113,641	98,906	120,627	113,691	115,515

\*For ammonium sulphate, etc., see Nitrogen Compounds, pages 230-236.

(a) Excess of re-exports.

(b) Includes coal imported for bunkering purposes. (See exports.)

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
Bahamas—						
Coal .. .. .	6	3	3	—	82	82
Barbados—						
Coal, coke and patent fuel .. .. .	540	619	86	239	260	264
Bermuda—						
Bituminous .. .. .	54	14	—	15	n.a.	n.a.
British Honduras—						
Coal and coke .. .. .	21	6	21	7	9	9
Grenada—						
Coal .. .. .	1	—	2	n.a.	n.a.	n.a.
Coke .. .. .	2	2	—	n.a.	n.a.	n.a.
Jamaica—						
Coal .. .. .	47	31	27	25	n.a.	n.a.
Coke .. .. .	517	776	792	842	n.a.	n.a.
Tar .. .. .	32	21	27	33	n.a.	n.a.
St. Kitts—						
Coal, coke and patent fuel .. .. .	35	10	80	—	n.a.	n.a.
St. Lucia—						
Coal .. .. .	8	1	1	11	3	3
Tar .. .. .	3	3	5	5	7	7
Trinidad and Tobago—						
Coal (b) .. .. .	(c) 276	316	67	110	53	54
Coke .. .. .	(c) 23	20	71	72	52	51
Falkland Islands—						
Coal .. .. .	113	156	126	39	n.a.	n.a.
Coke .. .. .	45	49	19	14	n.a.	n.a.
Guyana—						
Coal .. .. .	68	70	24	4	87	88
Coke .. .. .	21	36	48	50	109	110
Patent fuel .. .. .	60	60	56	—	—	—
Tar .. .. .	145	73	121	75	108	109
Ceylon—						
Coal (b) .. .. .	30,509	136,289	41,553	21,994	n.a.	n.a.
Coke .. .. .	553	965	1,294	2,277	n.a.	n.a.
Tar .. .. .	61	640	42	923	n.a.	n.a.
Cyprus—						
Coal .. .. .	514	174	195	178	147	150
Coke .. .. .	344	206	908	613	214	218
Tar and pitch .. .. .	—	12	—	—	—	—
Hong Kong—						
Coal .. .. .	144,328	113,925	76,559	43,910	22,640	23,002
Coke .. .. .	4,930	5,387	9,472	7,299	7,896	8,022
India—						
Coal .. .. .	2,856	1,040	237	1,068	770	782
Coke .. .. .	1,375	111	591	8,452	3,042	3,091
Tar and pitch (a) .. .. .	34	292	13	17	430	437
Malaysia (West)—						
Anthracite .. .. .	17,660	10,871	11,959	16,505	12,017	12,210
Coke .. .. .	5,492	6,387	5,526	6,333	11,472	11,656
Singapore—						
Anthracite .. .. .	1,018	78	—	—	99	100
Other coal .. .. .	2,816	—	3,791	34	40	41
Coke .. .. .	3,309	4,287	5,069	3,985	5,272	5,357
Australia (a)—						
Coal .. .. .	8,476	8,276	8,491	19,554	10,326	10,492
Coke .. .. .	10,846	2,968	1,868	1,078	13,075	13,285
Tar and pitch .. .. .	9,570	10,882	6,092	1,159	275	280

(a) Years ending March 31 following that stated.

(b) Including imports for bunkering purposes.

(See exports.)

(c) Excess of re-exports.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Fiji—						
Coal .. .. .	2,003	5,601	2,025	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	265	171	269	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar .. .. .	—	28	28	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
New Zealand (a)—						
Coal .. .. .	17,505	38,618	4,981	23	7	7
Coke .. .. .	64	60	50	—	<i>n.a.</i>	<i>n.a.</i>
Sabah—						
Coal and coke .. .. .	38	30	26	20	31	31
Sarawak—						
Coal and coke .. .. .	(b) 21	(b) 11	(b) 10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar .. .. .	1,101	94	25	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Western Samoa—						
Coal and coke .. .. .	20	7	12	7	25	25
Irish Republic—						
Anthracite .. .. .	65,534	66,012	71,783	71,473	80,905	82,203
Bituminous .. .. .	1,247,298	1,171,566	1,129,451	1,049,820	1,118,613	1,136,567
Coke .. .. .	15,076	17,011	21,505	27,549	10,727	10,899
Patent fuel .. .. .	2,906	2,511	2,234	6	681	692
Tar .. .. .	2,751	3,215	3,655	3,925	2,287	2,324
<b>OTHER COUNTRIES</b>						
Albania—						
Coke .. .. .	23,721	25,278	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Austria—						
Coal .. .. .	3,319,308	3,074,538	3,311,965	2,999,461	3,397,455	3,451,974
Brown coal .. .. .	39,458	41,375	33,063	46,059	136,885	139,082
Coke .. .. .	974,006	947,789	1,001,738	1,053,243	1,064,851	1,081,939
Briquettes .. .. .	522,296	564,040	495,636	562,940	812,266	825,300
Tar, pitch, etc. .. .. .	15,557	24,081	3,820	3,959	7,399	7,518
Belgium-Luxemburg						
R.U.—						
Coal .. .. .	6,121,098	5,794,867	6,630,804	6,561,615	7,583,888	7,705,590
do. coke .. .. .	3,570,153	3,643,976	4,400,253	5,155,163	5,127,028	5,209,304
do. briquettes .. .. .	340,097	325,344	349,637	311,905	277,399	281,851
Brown coal .. .. .	25	—	—	238	752	764
do. do. coke .. .. .	521	312	428	671	2,041	2,074
do. do. briquettes .. .. .	171,462	134,765	96,314	118,075	97,228	98,788
Tar .. .. .	37,478	41,030	41,169	35,287	48,913	49,698
Pitch .. .. .	2,647	461	252	529	2,708	2,752
Bulgaria—						
Coal .. .. .	3,100,250	3,180,000	3,268,000	3,999,000	4,813,000	4,890,000
Coke .. .. .	295,262	320,107	299,473	246,000	458,000	465,000
Czechoslovakia—						
Coal .. .. .	3,966,000	4,096,000	4,549,000	4,551,000	4,497,000	4,569,000
Denmark—						
Coal .. .. .	3,620,785	3,571,807	4,096,132	3,554,759	3,317,641	3,370,879
Coke .. .. .	810,592	577,626	438,691	541,492	349,293	354,898
Coal briquettes .. .. .	1,876	8,575	1,306	828	774	787
Brown coal briquettes .. .. .	135,513	103,669	92,692	77,785	71,418	72,564
Coke briquettes .. .. .	8,318	1,710	<i>n.a.</i>	(c)	(c)	(c)
Tar .. .. .	134	2,393	576	1,876	5,126	5,208
Pitch .. .. .	325	357	147	169	141	143
Faroe Islands—						
Coal .. .. .	2,534	2,357	1,213	1,077	692	703

(a) Years ended June 30 of that stated.

(b) Coke only

(c) Included with coke.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>Finland—</b>						
Anthracite .. ..	204,504	127,382	103,748	100,211	116,391	118,259
Other coal .. ..	1,805,928	1,896,170	1,955,408	2,323,263	3,054,174	3,103,186
Briquettes .. ..	4,839	2,840	1,936	1,191	1,660	1,687
Coke .. ..	715,053	724,855	651,430	749,605	829,635	842,948
Tar .. ..	73	45	89	78	221	225
<b>France—</b>						
Anthracite .. ..	3,160,056	3,012,629	2,846,683	2,810,753	2,945,492	2,992,758
Bituminous .. ..	7,756,467	8,251,636	8,535,310	9,508,472	11,019,634	11,196,471
Lignite .. ..	4,643	14,795	12,226	14,790	13,119	13,330
Coke .. ..	3,675,090	3,273,349	3,463,964	3,238,423	2,812,754	2,857,890
Coal briquettes ..	327,579	318,649	329,081	256,962	203,512	206,778
Brown-coal briquettes	357,271	336,775	340,284	289,140	280,982	285,491
Tar and pitch .. ..	244,119	288,522	254,814	229,648	223,466	227,052
<b>Germany (Federal)—</b>						
Coal .. ..	6,675,104	6,473,250	5,499,294	6,240,082	8,698,421	8,838,005
Brown coal .. ..	1,037,210	1,106,851	1,137,806	1,125,100	1,058,740	1,075,730
Coke .. ..	499,090	557,451	347,293	717,265	600,831	610,473
Coal briquettes ..	281,134	270,437	306,443	441,116	295,621	300,365
Brown-coal briquettes	28,546	20,697	23,087	27,303	26,676	27,104
Tar and pitch .. ..	51,131	37,127	42,585	53,052	80,848	82,145
<b>Germany (East)—</b>						
Coal .. ..	9,023,000	8,143,000	6,185,000	6,643,393	7,802,000	7,927,000
Brown coal .. ..	4,986,000	3,673,000	n.a.	n.a.	n.a.	n.a.
Coke .. ..	3,181,000	2,833,000	2,798,000	2,733,141	3,074,000	3,123,000
<b>Greece—</b>						
Anthracite .. ..	6,479	6,449	6,975	6,239	20,235	20,560
Other coal .. ..	108,701	107,238	64,675	91,297	138,888	141,117
Coke .. ..	248,799	121,015	208,377	266,388	281,941	286,465
Tar and pitch .. ..	4,052	7,123	6,685	11,685	13,404	13,619
<b>Hungary—</b>						
Coal .. ..	2,346,000	1,714,488	1,634,767	1,675,881	1,954,469	1,985,833
Coke .. ..	1,181,000	2,171,160	2,134,743	1,106,075	1,234,223	1,254,029
Pitch .. ..	—	—	n.a.	7,144	13,297	13,510
<b>Iceland—</b>						
Coal .. ..	4,928	5,038	2,965	2,295	967	983
Coke .. ..	742	354	1,164	352	293	298
Tar .. ..	18	18	16	105	9	9
<b>Italy—</b>						
Anthracite .. ..	} 10,522,042	11,625,991	10,375,199	11,224,516	11,552,554	11,737,943
Bituminous .. ..						
Lignite .. ..						
Coke .. ..						
Briquettes .. ..						
Tar .. ..						
Pitch .. ..						
<b>Netherlands—</b>						
Coal .. ..	6,573,537	6,928,287	7,295,080	5,836,782	4,697,756	4,773,141
Brown coal .. ..	132,447	89,109	74,331	871	2,824	2,869
Coke .. ..	205,221	184,631	390,372	986,870	899,320	913,752
Briquettes .. ..	44,139	24,347	18,720	11,758	3,591	3,649
Brown-coal briquettes	111,484	83,763	67,622	61,546	45,418	46,147
Tar .. ..	70,230	67,792	77,497	56,297	61,062	62,042
Pitch .. ..	57,586	54,341	84,045	89,746	105,907	107,607
<b>Norway—</b>						
Coal (a) .. ..	366,190	414,917	529,042	543,941	453,664	460,944
Coke .. ..	730,198	620,966	681,421	715,898	827,083	840,355
Briquettes .. ..	24	1	—	—	6	6
Tar and pitch .. ..	65,834	77,739	88,045	85,093	103,818	105,484

(a) Excluding coal imported from Spitzbergen.



## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>Poland—</b>						
Anthracite .. ..	23,000	30,000	32,000	24,000	33,000	34,000
Other coal .. ..	1,123,000	1,194,000	1,236,000	1,070,000	1,079,000	1,096,000
Brown-coal briquettes	427,000	219,000	134,000	296,000	305,000	310,000
<b>Portugal—</b>						
Anthracite .. ..	4,847	7,164	8,692	4,114	78,939	80,206
Other coal .. ..	457,744	374,539	376,601	331,370	393,861	400,181
Coke .. ..	285,203	293,336	227,110	340,047	243,996	257,911
Briquettes .. ..	123	71	295	—	—	—
Tar and pitch .. ..	3,727	3,578	2,740	2,409	5,271	5,356
<b>Roumania—</b>						
Coal .. ..	685,200	780,672	661,091	622,511	716,800	728,300
Coke .. ..	1,074,200	1,071,899	1,545,105	2,063,093	2,378,300	2,416,500
<b>Spain—</b>						
Anthracite .. ..	64,035	33,596	25,521	29,734	14,237	14,465
Bituminous .. ..	1,369,614	1,283,675	2,086,421	2,181,160	3,395,581	3,450,070
Coke .. ..	65,468	124,390	99,740	108,778	156,137	158,643
Tar and pitch .. ..	36,807	24,502	24,992	34,272	46,966	47,720
<b>Sweden—</b>						
Anthracite .. ..	91,535	97,342	91,193	114,217	122,059	124,018
Other coal .. ..	1,739,239	1,554,097	1,616,475	1,430,287	1,511,854	1,536,115
Coke (b) .. ..	1,266,157	997,294	1,057,004	1,083,786	1,188,834	1,207,911
Briquettes .. ..	7,144	5,828	8,432	13,578	n.a.	n.a.
Tar, pitch, etc. .. ..	237	175	195	254	384	390
<b>Switzerland—</b>						
Coal .. ..	874,297	633,566	561,463	508,875	391,353	397,633
Lignite .. ..	396	667	95	1,943	5,478	5,566
Coke .. ..	361,090	278,267	291,055	229,806	284,154	288,714
Briquettes .. ..	139,608	123,102	118,129	118,272	132,752	134,882
Tar and pitch .. ..	12,075	16,941	22,108	24,662	30,196	30,681
<b>U.S.S.R.—</b>						
Coal .. ..	7,200,000	7,700,000	6,791,000	7,100,000	6,988,000	7,100,000
Coke .. ..	644,000	674,181	647,600	649,000	663,000	674,000
<b>Yugoslavia—</b>						
Anthracite .. ..	132,228	141,684	135,204	151,780	143,880	146,189
Other coal .. ..	1,661,901	1,280,094	1,579,510	1,649,650	1,646,841	1,673,268
Coke .. ..	169,017	112,579	108,452	119,017	197,430	200,599
Tar and pitch .. ..	25	68	15	5	6	6
<b>Algeria—</b>						
Coal .. ..	10,523	41,087	55,352	78,658	n.a.	n.a.
Coke .. ..	11,033	4,633	6,523	67,509	n.a.	n.a.
<b>Angola—</b>						
Coal .. ..	31,643	19,546	37,202	33,540	16,582	16,848
Coke .. ..	620	543	457	686	888	902
Tar and pitch .. ..	225	181	239	340	241	245
<b>Cameroun—</b>						
Coal, coke, etc. .. ..	450	850	n.a.	n.a.	n.a.	n.a.
<b>Canary Islands—</b>						
Coal .. ..	37	25	24	27	27	27
<b>Egypt—</b>						
Coal .. ..	287,294	472,452	497,238	483,895	487,661	495,487
Coke .. ..	5,000	n.a.	n.a.	71,235	n.a.	n.a.
<b>Equatorial African Community—</b>						
Coal, coke, briquettes ..	136	108	148	127	n.a.	n.a.
<b>Ethiopia (a)—</b>						
Coal .. ..	n.a.	752	4,747	9,741	39	40
<b>Ivory Coast—</b>						
Coal and briquettes ..	78	5	46	60	34	35
Coke .. ..	129	185	279	202	251	255
<b>Libya—</b>						
Coal, coke, briquettes ..	97	2,215	3,549	778	n.a.	n.a.

(a) Years ended September 10 of that stated.

(b) including coke briquettes.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Malagasy Republic—						
Coal and briquettes ..	14,962	16,943	20,802	18,348	20,662	20,994
Coke .. .. .	71	69	166	74	53	54
Tar and pitch .. ..	93	95	64	142	69	70
Morocco—						
Coal .. .. .	18,940	42,007	59,681	58,050	46,569	47,316
Coke .. .. .	13,130	13,888	16,324	17,233	17,741	18,026
Pitch .. .. .	1,547	1,861	1,471	728	2,240	2,276
Mozambique—						
Coal .. .. .	225,314	205,990	r 304,945	429,011	330,259	335,559
Coke .. .. .	1,385	1,511	1,442	1,756	1,684	1,711
Tar, pitch and asphalt..	3,999	70	70	50	120	122
Senegal—						
Coal and briquettes ..	205	143	308	n.a.	240	254
Coke .. .. .	67	151	130	n.a.	156	159
South Africa—						
Coal .. .. .	641	733	20,661	18,759	59,761	60,720
Coke .. .. .	25,483	3,749	6,112	7,285	7,417	7,536
Sudan—						
Coke .. .. .	295	—	—	984	—	—
Togo—						
Coal and briquettes ..	53	13	65	11	n.a.	n.a.
Tunisia—						
Coal .. .. .	29,146	37,042	28,210	20,420	28,504	28,961
Coke .. .. .	54,985	106,476	98,983	109,721	113,899	115,727
Tar and pitch .. ..	42	15	22	22	19	19
Costa Rica—						
Coal .. .. .	81	46	54	38	24	24
Coke .. .. .	161	70	190	128	217	220
Greenland—						
Coal .. .. .	5,872	14,247	11,556	8,613	10,653	10,824
Guatemala—						
Coal .. .. .	48	91	20	30	50	51
Coke .. .. .	253	94	79	180	224	228
Honduras—						
Coal .. .. .	148	121	186	245	59	60
Coke .. .. .	29	2	16	95	333	338
Mexico—						
Coal .. .. .	61,614	59,228	65,054	110,684	148,633	151,018
Coke .. .. .	122,836	144,994	298,917	533,416	334,818	340,191
Tar .. .. .	2,426	663	326	530	604	614
Nicaragua—						
Coal .. .. .	24	—	10	7	15	15
Coke .. .. .	82	58	105	133	53	54
Panama Republic—						
Coal .. .. .	1,645	2,900	n.a.	n.a.	n.a.	n.a.
Salvador—						
Coal .. .. .	90	98	151	101	124	126
Coke .. .. .	235	181	150	260	196	199
Tar .. .. .	58	63	67	43	38	39
St. Pierre and Miquelon—						
Coal .. .. .	7,486	8,159	2,459	5,135	n.a.	n.a.
United States—						
Bituminous coal ..	139,949	189,565	138,803	70,496	9,396	9,547
Other coal .. .. .	28,380	28,970	64,130	27,955	26,005	26,422
Coke .. .. .	85,501	82,144	84,004	154,511	136,500	138,690
Argentina—						
Coal .. .. .	686,901	793,257	511,751	424,169	341,822	347,307
Coke .. .. .	50,843	38,633	30,926	45,646	13,641	13,860
Tar and pitch .. ..	55	33	393	2,517	6,043	6,140
Bolivia—						
Coal and coke .. ..	784	371	1,176	n.a.	n.a.	n.a.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes	
	1966	1967	1968	1969	1970	1970	
<b>OTHER COUNTRIES</b>							
<i>(cont.)</i>							
<b>Brazil—</b>							
Coal .. .. .	1,716,875	1,513,181	1,386,037	1,891,036	1,957,216	1,988,624	
Coke .. .. .	56,926	42,813	61,544	86,782	110,519	112,292	
<b>Chile—</b>							
Coal .. .. .	80,000	278,919	205,280	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	269	136	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Colombia—</b>							
Coal .. .. .	—	—	30	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Peru—</b>							
Coal .. .. .	10	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	4,440	12,431	10,188	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Tar .. .. .	9	27	3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Uruguay—</b>							
Coal .. .. .	13,980	14,825	20,607	260,051	27,045	27,479	
Coke .. .. .	1,922	2,116	1,572	2,190	3,404	3,459	
<b>Venezuela—</b>							
Coal .. .. .	3,810	4,380	17,914	26,744	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	153,858	205,582	354,597	272,307	<i>n.a.</i>	<i>n.a.</i>	
<b>Burma—</b>							
Coal .. .. .	69,527	183,368	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .		5,169	4,853	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Formosa—</b>							
Coke .. .. .	10,390	15,976	9,563	12,895	10,378	10,545	
<b>Iraq—</b>							
Coal .. .. .	548	465	529	93	343	348	
Coke .. .. .	635	603	1,000	977	55	56	
<b>Israel—</b>							
Anthracite .. .. .	1,356	262	3,468	871	2,341	2,379	
Other coal .. .. .							
Coke .. .. .							
Coal .. .. .	6,377	6,205	5,928	8,555	<i>n.a.</i>	<i>n.a.</i>	
<b>Japan—</b>							
Anthracite .. .. .	19,201,248	1,413,248	1,433,704	1,280,604	1,382,658	1,404,846	
Other coal .. .. .		23,651,317	30,478,212	39,232,070	47,997,186	48,767,419	
Coke .. .. .		7	219,721	231,699	169,885	144,065	146,377
Tar and pitch .. .. .		31	28	25	7	—	—
<b>Jordan—</b>							
Coal and briquettes .. .. .	466	<i>n.a.</i>	461	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Korea (South)—</b>							
Coal .. .. .	62,315	55,914	53,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	26,821	31,101	50,345	62,633	62,246	63,245	
<b>Lebanon—</b>							
Coal and briquettes .. .. .	1,722	2,165	1,842	1,132	295	300	
Coke .. .. .	3,608	2,244	5,751	11,363	5,020	5,101	
<b>Philippine Republic—</b>							
Coal .. .. .	<i>n.a.</i>	130	291	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	<i>n.a.</i>	14,569	22,531	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Tar .. .. .	<i>n.a.</i>	12	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Syria—</b>							
Coal and briquettes .. .. .	605	1,213	2,285	1,522	1,207	1,226	
Coke .. .. .	<i>n.a.</i>	1,071	3,112	3,267	1,248	1,268	
<b>Thailand—</b>							
Coal .. .. .	1,337	59	3	78	223	227	
Coke .. .. .	4,153	4,453	9,789	9,219	9,628	9,783	
Tar .. .. .	77	—	—	20	1,585	1,610	
<b>Turkey—</b>							
Coal .. .. .	328	326	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	7,807	11,662	15,837	18,615	<i>n.a.</i>	<i>n.a.</i>	
Pitch .. .. .	74	—	—	—	<i>n.a.</i>	<i>n.a.</i>	
<b>French Polynesia—</b>							
Coal .. .. .	—	10	10	5	<i>n.a.</i>	<i>n.a.</i>	
<b>New Caledonia—</b>							
Coal .. .. .	215,880	243,653	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Coke .. .. .	137,638	82,897	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	

**COBALT**  
**PRODUCTION OF COBALT ORE**  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Zambia (a) .. ..	1,490	1,430	1,321	1,770	2,019	2,052
Canada (c) .. ..	1,567	1,609	1,799	1,453	2,334	2,372
Australia (d)—						
Zinc concentrates ..	95	100	114	135	123	125
Nickel concentrates ..	—	45	98	105	333	338
<b>OTHER COUNTRIES</b>						
Congo (Kinshasa) (b) ..	11,119	9,565	9,941	10,409	13,738	13,958
Morocco .. .. .	1,788	1,725	1,494	1,388	587	595
Cuba (e) .. .. .	901	1,027	1,071	1,518	1,518	1,542
<b>TOTAL*</b> .. .. .	<b>20,000</b>	<b>19,000</b>	<b>19,000</b>	<b>20,000</b>	<b>24,000</b>	<b>24,500</b>

\*An allowance has been made for cobalt contained in ores produced in Uganda, Finland and the United States.

Ores containing cobalt are also known to have been produced in Cyprus, Greece, Norway, Spain, Sweden, the U.S.S.R., China and Korea.

(a) Refined metal plus estimated cobalt content of cobalt alloy and other cobalt.

(b) Electrolytic cobalt plus recoverable cobalt in cobalt alloy.

(c) Metal recovered from smelter products plus cobalt contained in cobalt ores and residues exported.

(d) Cobalt content.

(e) Recoverable cobalt in sulphide. United States Bureau of Mines' estimate.

**METAL PRODUCTION OF COBALT**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Zambia	1,490	1,430	1,321	1,770	2,019	2,052
<b>OTHER COUNTRIES</b>						
France	827	1,017	927	631	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) (a) ..	1,091	869	796	770	813	826
Norway (b) .. .. .	786	501	633	723	787	800
Congo (Kinshasa) .. ..	11,119	9,565	10,000	10,409	11,894	12,085

Cobalt and its compounds are also known to have been produced in the United Kingdom, Canada, Belgium, the U.S.S.R. and the United States. In addition, the following amounts of cobalt oxide hydrate, salts and driers were produced in the United States (in terms of cobalt content):

Year	Long tons	Year	Long tons
1966	899	1969	1,400
1967	917	1970	1,339 (1,360 tonnes)
1968	984		

(a) Obtained chiefly from pyrite sinter imported from Cyprus, Finland, Norway, Spain, Sweden and other countries. Including secondary metal.

(b) Obtained from copper-nickel matte imported from Canada.

EXPORTS OF COBALT, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Cobalt (a) .. ..	186	370	253	300	546	555
Cobalt oxide .. ..	460	192	92	70	341	346
Zambia—						
Cobalt .. .. .	1,602	2,058	1,208	1,563	1,620	1,646
Canada—						
Cobalt .. .. .	280	669	541	516	375	381
Cobalt oxides and salts ..	584	863	735	536	824	837
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Cobalt (b) (c) .. ..	3,225	2,213	2,112	1,514	1,301	1,322
Finland						
Cobalt .. .. .	—	—	346	794	691	703
France—						
Ingots and scrap (a) ..	595	598	717	449	271	275
Cobalt oxide .. ..	1	1	10	99	106	108
Cobalt salts .. ..	17	—	5	24	5	5
Germany (Federal)—						
Cobalt (c) .. ..	441	189	178	195	194	197
Cobalt oxide .. ..	56	39	38	25	14	14
Norway—						
Cobalt .. .. .	797	427	503	945	709	720
Sweden—						
Cobalt .. .. .	3	5	3	4	5	5
U.S.S.R.—						
Cobalt .. .. .	100	100	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo (Kinshasa) (d)—						
Cobalt .. .. .	10,880	7,750	9,300	8,200	13,800	14,100
Morocco—						
Ore .. .. .	19,226	15,319	17,991	15,108	8,612	8,750
United States—						
Ore and metal (c) ..	456	669	972	1,050	1,206	1,225
Japan—						
Cobalt oxide .. ..	3	2	—	—	5	5

(a) Including alloys.

(b) Exports of cobalt metal are not separately recorded. Figures relate to imports into the United States and Japan from Belgium.

(c) Including alloys and scrap.

(d) Estimated.

## IMPORTS OF COBALT, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Cobalt (c) .. ..	1,549	1,608	1,559	1,436	2,320	2,357
Cobalt oxide .. ..	1,101	657	810	385	1,440	1,463
Hong Kong—						
Cobalt oxide .. ..	46	51	30	75	55	56
India—						
Cobalt oxide .. ..	18	25	10	24	11	11
Australia (a)—						
Cobalt ingots, etc. .. ..	52	77	71	121	94	96
Cobalt oxide .. ..	22	38	29	15	25	25
Cobalt salts .. ..	125	182	237	133	150	152
New Zealand (a)—						
Cobalt salts .. ..	<i>n.a.</i>	1	—	7	5	5
<b>OTHER COUNTRIES</b>						
Denmark—						
Cobalt .. ..	20	22	24	31	22	22
France—						
Ore .. ..	11,933	11,736	11,417	8,574	7,550	7,671
Ingots and scrap (c) .. ..	430	392	269	653	967	983
Cobalt oxide .. ..	134	131	112	134	285	290
Germany (Federal)—						
Cobalt (b) .. ..	722	561	1,175	1,570	1,464	1,487
Cobalt oxide .. ..	315	306	414	431	464	471
Italy—						
Cobalt (b) .. ..	384	327	339	450	332	337
Cobalt oxide .. ..	206	211	225	256	223	227
Netherlands—						
Cobalt .. ..	160	234	174	239	366	372
Portugal—						
Cobalt oxide .. ..	3	4	—	7	5	5
Sweden—						
Cobalt .. ..	256	187	166	389	469	477
Yugoslavia—						
Cobalt .. ..	29	28	44	54	56	57
Mexico—						
Cobalt oxide .. ..	67	68	97	73	78	79
United States—						
Cobalt metal .. ..	7,978	3,547	4,115	5,373	5,300	5,385
Cobalt oxide .. ..	571	466	530	525	317	322
Cobalt salts .. ..	67	75	48	58	70	71
Argentina—						
Cobalt metal .. ..	44	59	70	77	58	59
Cobalt salts .. ..	10	10	10	16	10	10
Brazil—						
Cobalt oxide .. ..	42	36	54	58	53	54
Japan—						
Ingots, slabs and grains	2,005	2,604	1,934	4,109	4,465	4,537
Cobalt oxide .. ..	329	453	434	524	599	609

(a) Years ended June 30 of that stated.

(b) Including alloys and scrap.

(c) Including alloys.

**COPPER**  
**PRODUCTION OF COPPER ORE**  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya (f) .. ..	500	10	37	76	78	79
Rhodesia .. ..	(c) 16,900	17,678	(b) 19,200	(b) 27,400	(b) 23,600	(b) 24,000
Uganda (h) .. ..	15,844	14,198	15,354	16,310	16,690	16,958
Zambia .. ..	613,594	652,500	654,384	736,300	673,300	684,100
Canada (g) .. ..	448,702	547,602	565,458	511,827	600,640	610,281
Cyprus (e) .. ..	24,347	15,200	21,570	18,860	18,838	19,140
India .. ..	10,000	9,000	9,000	10,000	9,500	9,700
Australia .. ..	109,537	90,361	107,906	128,986	149,556	151,196
New Zealand .. ..	—	150	50	70	46	47
<b>TOTAL .. ..</b>	<b>1,239,000</b>	<b>1,327,000</b>	<b>1,379,000</b>	<b>1,437,000</b>	<b>1,492,000</b>	<b>1,516,000</b>
Irish Republic .. ..	1,115	3,425	6,777	6,170	8,150	8,281
<b>OTHER COUNTRIES</b>						
Albania (c) .. ..	4,910	5,900	5,900	5,900	(b) 6,900	(b) 7,000
Austria .. ..	1,872	1,930	2,079	2,300	2,226	2,262
Bulgaria .. ..	29,000	35,000	37,000	38,000	41,000	42,000
Finland .. ..	25,970	28,377	29,500	32,500	30,400	30,900
France (d) .. ..	427	399	385	383	246	250
Germany—						
Federal Republic .. ..	1,153	1,171	1,317	1,421	1,254	1,274
East (b) .. ..	20,000	20,000	20,000	20,000	10,000	10,000
Italy .. ..	2,200	2,500	2,500	2,400	2,300	2,300
Norway .. ..	14,581	14,225	16,511	21,144	19,632	19,947
Poland .. ..	15,000	15,000	15,000	45,000	64,000	65,000
Portugal .. ..	3,676	3,605	4,450	4,010	3,703	3,762
Spain (i) .. ..	8,645	8,416	8,233	10,039	8,980	9,124
Sweden .. ..	15,036	15,044	17,925	24,753	25,786	26,200
U.S.S.R. (b) .. ..	750,000	850,000	850,000	875,000	886,000	900,000
Yugoslavia .. ..	61,239	62,154	69,373	80,387	89,374	90,808
Algeria .. ..	1,045	1,033	776	541	565	574
Congo (Kinshasa) (h) .. ..	310,679	313,938	319,375	351,269	379,587	385,679
Congo (Brazza) .. ..	n.a.	445	514	8	54	55
Morocco .. ..	2,292	2,180	2,634	2,497	3,179	3,230
South Africa .. ..	122,692	125,521	126,206	124,192	146,849	149,205
South West Africa .. ..	38,000	33,000	30,000	25,000	22,000	23,000
Cuba (b) .. ..	6,000	6,300	6,700	7,100	7,000	7,000
Haiti .. ..	2,687	2,313	1,572	1,768	4,700	4,800
Mexico (d) .. ..	73,221	61,633	64,000	65,690	60,000	61,000
Nicaragua .. ..	9,610	9,188	6,614	4,341	2,981	3,029
United States (d) .. ..	1,276,029	851,843	1,075,554	1,379,088	1,535,408	1,559,975
Argentina .. ..	332	404	413	449	n.a.	n.a.
Bolivia (a) .. ..	5,612	6,229	6,790	7,775	8,600	8,700
Brazil (c) .. ..	2,000	2,900	(b) 3,500	3,700	3,300	3,400
Chile (d) .. ..	650,000	650,000	648,000	676,000	682,000	693,000

(a) Exports of ore (metal content) and metal.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

(d) Amount estimated as recoverable.

(e) Estimated copper content of concentrates, cement copper and cupreous pyrites exported. The copper content of copper concentrates and cement copper produced was as follows (long tons): 1966—16,000; 1967—15,500; 1968—14,500; 1969—16,700; 1970—16,400 (16,600 tonnes);

(f) Copper content of cement copper.

(g) Blister copper plus recoverable copper in ores and matte exported.

(h) Smelter.

(i) Excluding copper contained in iron pyrites, estimated at about 10,000 tons per annum in recent years. This may or may not be recovered.

PRODUCTION OF COPPER ORE (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Ecuador .. .. .	220	408	548	525	502	510
Peru (d) .. .. .	196,840	189,625	r 209,180	195,663	208,800	212,100
Burma (c) .. .. .	100	70	40	40	n.a.	n.a.
China (a) (b) .. .. .	85,000	80,000	85,000	100,000	100,000	100,000
Formosa .. .. .	1,962	2,207	2,200	2,303	2,500	2,500
Israel .. .. . (c)	8,500	10,000	10,100	10,500	10,814	10,988
Japan .. .. .	109,522	115,986	118,038	119,211	117,530	119,416
Korea (South) .. .. .	1,000	770	916	949	738	750
Korea (North) (c) .. .. .	12,000	12,000	12,000	12,000	n.a.	n.a.
Philippine Republic .. .. .	72,592	84,800	108,533	129,300	157,764	160,292
Turkey (a) .. .. .	28,483	28,717	31,463	29,477	30,600	31,100
<b>TOTAL</b> .. .. .	<b>3,900,000</b>	<b>3,600,000</b>	<b>3,900,000</b>	<b>4,400,000</b>	<b>4,600,000</b>	<b>4,700,000</b>
<b>WORLD'S TOTAL</b> .. .. .	<b>5,100,000</b>	<b>5,000,000</b>	<b>5,300,000</b>	<b>5,800,000</b>	<b>6,200,000</b>	<b>6,300,000</b>

Ores containing copper are also known to have been produced in Fiji, Czechoslovakia, Hungary, Malaysia (West) and Iran.

- (a) Smelter.
- (b) Estimated.
- (c) United States Bureau of Mines' estimate.
- (d) Amount estimated as recoverable.



## METAL PRODUCTION OF COPPER

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia .. .. .	(c) 17,000	(c) 17,000	19,000	21,000	23,000	23,000
Uganda .. .. .	15,844	14,198	15,346	16,400	16,690	16,958
Zambia .. .. .	577,077	606,486	654,600	683,968	672,459	683,250
Canada (a) .. .. .	379,000	446,291	465,280	402,370	484,833	492,665
India .. .. .	9,362	8,763	9,139	9,597	9,164	9,311
Australia .. .. .	90,487	70,826	92,454	114,349	109,126	110,877
<b>TOTAL .. .. .</b>	<b>1,089,000</b>	<b>1,138,000</b>	<b>1,256,000</b>	<b>1,247,000</b>	<b>1,315,000</b>	<b>1,336,000</b>
<b>OTHER COUNTRIES</b>						
Albania (c) .. .. .	4,000	4,000	6,000	6,000	<i>n.a.</i>	<i>n.a.</i>
Austria (b) .. .. .	16,756	17,168	17,734	18,995	21,700	22,000
Bulgaria .. .. .	25,300	32,900	35,900	37,400	39,000	40,000
Finland .. .. .	31,900	33,400	35,900	33,400	34,100	34,700
Germany—						
Federal Republic .. .. .	69,100	72,100	94,200	91,400	83,100	84,400
East (e) .. .. .	20,000	20,000	20,000	20,000	10,000	10,000
Italy .. .. .	438	163	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Norway .. .. .	r 33,701	r 33,857	r 41,070	49,164	56,991	57,906
Poland .. .. .	39,200	41,500	42,900	45,000	64,000	65,000
Spain .. .. .	23,662	28,545	45,054	37,203	39,196	39,825
Sweden .. .. .	28,418	31,689	27,400	32,575	32,000	32,500
U.S.S.R. (e) .. .. .	750,000	800,000	800,000	900,000	910,000	925,000
Yugoslavia .. .. .	57,317	60,384	71,739	91,156	104,228	105,901
Congo (Kinshasa) .. .. .	310,679	313,938	319,375	356,495	379,372	385,460
South Africa .. .. .	113,214	125,520	126,206	123,658	146,848	149,205
South-West Africa .. .. .	32,511	31,160	29,700	28,010	26,900	27,300
Mexico .. .. .	54,366	53,582	58,825	55,700	58,600	59,600
United States (d) .. .. .	1,309,318	769,946	1,130,784	1,415,584	1,465,000	1,489,000
Chile .. .. .	623,384	621,101	613,400	645,901	731,034	742,765
Peru .. .. .	147,575	159,266	183,902	166,441	173,000	176,000
China (e) .. .. .	85,000	77,000	85,000	100,000	118,000	120,000
Formosa .. .. .	2,437	2,954	2,502	3,193	3,693	3,752
Japan (f) .. .. .	313,902	389,062	469,734	521,445	540,068	548,734
Korea (South) .. .. .	2,854	3,195	4,480	5,140	5,036	5,117
Korea (North) (c) .. .. .	12,000	12,000	12,000	12,000	<i>n.a.</i>	<i>n.a.</i>
Turkey .. .. .	28,483	28,717	31,463	29,477	31,000	32,000
<b>TOTAL .. .. .</b>	<b>4,300,000</b>	<b>3,700,000</b>	<b>4,000,000</b>	<b>4,800,000</b>	<b>5,100,000</b>	<b>5,200,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>5,400,000</b>	<b>4,800,000</b>	<b>5,300,000</b>	<b>6,100,000</b>	<b>6,400,000</b>	<b>6,500,000</b>

(a) Copper content of blister and anode copper.

(b) Including secondary metal.

(c) United States Bureau of Mines' estimate.

(d) In addition, secondary metal was recovered as follows (long tons):

1966—1,191,294; 1967—1,035,631; 1968—1,087,777; 1969—1,228,119; 1970—1,041,487 (1,058,200 tonnes).

(e) Estimated.

(f) In addition, secondary metal was recovered as follows (long tons):

1966—84,547; 1967—73,357; 1968—70,011; 1969—97,768; 1970—100,600 (102,200 tonnes).

## EXPORTS OF COPPER, ETC.\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unwrought—Refined ..	49,533	57,943	52,425	58,708	44,188	44,897
Alloys ..	42,960	57,168	48,484	46,243	44,740	45,458
Scrap (a) ..	10,379	2,817	1,586	2,196	1,958	1,989
Semi-manufactures ..	53,922	46,716	73,580	83,648	97,828	99,398
do. alloys ..	27,105	24,175				
Sulphate ..	13,284	12,457	10,539	7,466	8,958	9,102
Kenya—						
Unwrought (a) ..	1,564	—	—	—	2	2
Uganda—						
Unwrought (a) ..	15,550	14,738	15,385	16,374	16,186	16,446
Zambia—						
Unwrought—						
Blister ..	84,305	77,562	89,199	105,432	102,097	103,735
Electrolytic ..	505,404	512,433	537,207	608,613	569,311	578,447
Other ..	3	497	5,264	3,139	n.a.	n.a.
Canada—						
Ore, matte, etc. (Cu content) ..	84,721	115,157	144,495	140,908	159,928	162,494
Unwrought ..	170,260	246,356	246,981	187,530	261,075	265,264
Scrap ..	26,255	27,822	58,199	35,746	28,042	28,492
Scrap alloys ..	12,005	16,382	25,528	20,812	18,642	18,941
Semi-manufactures ..	44,133	33,343	51,790	35,032	36,691	37,280
do. alloys (c) ..	8,090	10,844	9,898	13,468	15,624	15,875
Cyprus—						
Ore and concentrates ..	57,755	44,625	62,746	59,072	53,011	53,862
Cupreous pyrites ..	161,653	183,673	148,021	102,971	94,532	96,049
Copper cement ..	14,545	8,773	12,068	8,742	10,961	11,137
Hong Kong—						
Scrap (a) ..	6,041	7,904	9,481	9,373	10,518	10,687
Semi-manufactures (a) ..	4	1	29	59	127	129
India—						
Semi-manufactures(a)(b) ..	474	305	2,688	3,370	5,373	5,459
Malaysia (West)—						
Ore ..	750	1,000	1,256	1,000	1,000	1,016
Singapore—						
Semi-manufactures (a) ..	484	713	690	545	477	484
Sulphate ..	89	45	62	105	91	93
Australia—						
Ores, concentrates and dross (Cu content) ..	15,379	14,173	13,988	11,850	36,374	36,958
Unwrought—						
Blister ..	6,538	6,893	7,063	8,425	6,967	7,079
Refined ..	7,484	9,325	16,518	32,208	30,939	31,436
Alloys ..	291	5	7	27	55	56
Scrap (a) ..	4,430	223	(d) 32	(d) 54	(d) 58	(d) 59
Semi-manufactures (a) ..	18,640	9,454	10,621	13,660	17,654	17,937
Fiji—						
Ore ..	1	1	3,240	n.a.	n.a.	n.a.
New Zealand (e)—						
Unwrought (a) ..	533	2,285	3,529	3,707	n.a.	n.a.
Scrap (a) ..	1,471	1,536	1,175	732	n.a.	n.a.
Semi-manufactures (a) ..	907	575	317	658	n.a.	n.a.

\*In these tables the description "unwrought" copper corresponds to item 682.1 of the Standard International Trade Classification and includes both blister and refined copper. "Semi-manufactures" corresponds to S.I.T.C. 682.2 and includes foil and powder as well as rods, wire, sheets, strip, tubes, pipes, etc.

(a) Including alloys.

(d) Copper-base alloys only.

(b) Years ended March 31 following that stated.

(e) Year ended June 30 of that stated.

(c) Including refinery shapes.

## EXPORTS OF COPPER, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Irish Republic—						
Ore and concentrates ..	—	—	11,046	18,160	11,547	11,732
Scrap (a) .. ..	4,284	3,930	2,881	4,186	4,176	4,243
<b>OTHER COUNTRIES</b>						
Albania—						
Unwrought .. ..	2,179	2,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Austria—						
Unwrought .. ..	4,401	3,921	4,256	4,623	5,750	5,842
do. alloys .. ..	228	549	739	994	577	586
Scrap (a) .. ..	393	297	233	489	1,057	1,074
Semi-manufactures (a)	5,223	4,703	4,057	6,780	10,972	11,148
Sulphate .. ..	258	537	208	680	1,063	1,080
Belgium-Luxemburg						
E.U.—						
Unwrought (a) (b) ..	258,830	281,884	304,933	256,856	300,142	304,958
Scrap .. ..	17,651	14,112	15,750	17,910	16,582	16,848
Semi-manufactures (a)	80,003	71,853	91,022	106,240	111,123	112,906
Sulphate .. ..	7,509	5,208	8,522	4,713	6,324	6,426
Denmark—						
Unwrought .. ..	3	36	—	46	20	20
do. alloys .. ..	748	448	1,281	793	1,791	1,820
Scrap (a) .. ..	3,492	4,312	4,853	3,425	5,351	5,437
Semi-manufactures (a)	1,844	1,994	2,538	2,313	2,196	2,231
Finland—						
Unwrought (a) .. ..	13,294	11,946	10,813	6,427	3,684	3,743
Semi-manufactures (a)	10,208	10,228	12,940	15,870	14,381	14,612
France—						
Ore .. ..	—	169	—	—	—	—
Matte .. ..	681	219	611	899	689	700
Unwrought—						
Unrefined .. ..	15,650	12,256	12,487	9,795	8,500	8,637
Refined .. ..	8,988	9,197	10,447	6,105	2,926	2,973
Alloys .. ..	6,205	4,512	1,962	2,051	3,193	3,244
Scrap .. ..	8,027	8,781	6,116	6,501	7,164	7,279
do. alloys .. ..	30,880	34,012	26,393	33,881	41,421	42,086
Semi-manufactures (a)	30,826	28,989	32,445	37,334	50,503	51,314
Sulphate .. ..	5,157	6,646	4,904	4,604	5,881	5,975
Germany (Federal)—						
Ore .. ..	2,209	574	—	—	345	351
Unwrought—						
Unrefined .. ..	2,145	2,988	3,954	1,182	931	946
Refined .. ..	147,633	156,082	136,854	93,963	78,681	79,944
Alloys .. ..	2,499	2,932	2,044	3,664	4,437	4,508
Scrap (a) .. ..	43,364	34,782	31,221	30,451	34,708	35,265
Semi-manufactures (a)	91,830	98,201	92,751	96,739	109,017	110,766
Sulphate .. ..	3,402	3,814	3,024	1,001	1,506	1,530
Greece—						
Semi-manufactures ..	1,142	1,317	1,468	1,441	1,461	1,485
Italy—						
Ore .. ..	2,366	6,008	7,959	8,253	9,398	9,549
Unwrought (a) .. ..	5,774	6,100	9,264	5,001	5,770	5,863
Scrap (a) .. ..	325	272	857	839	1,011	1,027
Semi-manufactures (a)	23,564	18,096	22,188	24,997	20,526	20,855
Sulphate .. ..	2	13	128	617	71	72
Netherlands—						
Unwrought .. ..	1,114	876	3,075	877	593	603
do. alloys .. ..	7,830	4,610	6,350	7,662	6,792	6,901
Scrap (a) .. ..	34,243	33,674	30,154	33,611	30,821	31,316
Semi-manufactures (a)	15,803	13,304	18,079	19,702	16,652	16,919
Sulphate .. ..	36	41	32	132	69	70

(a) Including alloys.

(b) Including matte.

## EXPORTS OF COPPER, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Norway—						
Ore .. .. .	15,106	12,955	19,723	35,016	33,022	33,552
Unwrought—						
Unrefined .. ..	5,022	6,456	5,363	5,593	6,275	6,376
Refined .. .. .	13,642	13,964	16,709	20,459	25,689	26,101
Alloys .. .. .	3,057	3,267	3,326	3,630	2,954	3,001
Scrap (a) .. ..	1,892	1,973	1,495	1,684	1,454	1,477
Semi-manufactures (a)	4,947	2,936	2,478	3,278	2,618	2,660
Portugal—						
Ore .. .. .	—	32	31	19	—	—
Unwrought .. ..	1,351	861	850	367	342	347
Semi-manufactures (a)	343	148	280	832	1,033	1,050
Sulphate .. .. .	311	341	685	214	136	138
Spain—						
Unwrought (a) ..	19,895	35,343	33,547	21,486	18,123	18,414
Scrap .. .. .	210	178	163	12	33	34
Semi-manufactures (a)	26	348	1,129	2,425	3,097	3,147
Sweden—						
Unwrought .. ..	28,754	31,773	27,019	33,284	26,726	27,155
do. alloys .. ..	5,106	5,547	3,988	5,274	4,866	4,944
Scrap (a) .. .. .	959	999	919	573	1,352	1,374
Semi-manufactures (a)	35,637	27,088	36,509	34,485	33,316	33,851
Sulphate .. .. .	463	873	422	552	264	268
Switzerland—						
Unwrought (a) ..	4,089	4,543	6,359	3,982	3,780	3,841
Scrap (a) .. .. .	11,026	10,286	12,580	17,662	12,707	12,911
Semi-manufactures (a)	10,836	9,809	9,754	9,344	8,183	8,314
Sulphate .. .. .	1,059	1,260	1,354	1,308	1,256	1,276
U.S.S.R.—						
Unwrought (b) ..	118,200	92,510	107,574	105,700	121,100	123,100
Semi-manufactures ..	5,200	5,708	7,775	8,000	8,300	8,400
Sulphate .. .. .	19,200	18,500	12,401	20,900	17,600	17,900
Yugoslavia—						
Unwrought (a) ..	176	1,397	9,210	17,242	27,373	27,812
Semi-manufactures (a)	31,356	23,260	33,679	45,011	47,293	48,052
Sulphate .. .. .	5,197	n.a.	2,657	7,756	4,070	4,135
Algeria—						
Ore .. .. .	1,527	241	24,437	980	n.a.	n.a.
Angola—						
Unwrought— .. ..	300	53	—	54	263	267
Congo (Kinshasa)—						
Unwrought .. .. .	305,710	273,940	306,300	331,000	367,000	373,000
Morocco—						
Ore .. .. .	7,531	7,438	6,418	14,456	8,983	9,127
Scrap (a) .. .. .	1,075	1,031	916	1,196	1,320	1,341
South Africa—						
Unwrought (a) ..	119,822	145,328	136,369	116,667	116,059	117,921
Semi-manufactures ..	3,359	5,341	7,875	2,213	3,271	3,325
South West Africa—						
Ore (Cu content) ..	8,889	n.a.	n.a.	n.a.	n.a.	n.a.
Lead concentrates (Cu content)	4,372	n.a.	n.a.	n.a.	n.a.	n.a.
Tunisia—						
Unwrought and scrap ..	967	548	893	985	770	782
Cuba—						
Ore .. .. .	13,000	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico—						
Ore, concentrates, etc. . .	5,651	2,055	1,180	4,090	528	536
Unwrought—						
Unrefined .. ..	7,163	6,272	8,304	7,219	5,594	5,684
Refined .. .. .	246	—				
Semi-manufactures (a)	5,213	825	4,156	8,559	1,481	1,505

(a) Including alloys.

(b) Including wire.

## EXPORTS OF COPPER, ETC. (cont.)

Exporting Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Nicaragua—						
Ore and concentrates ..	42,585	41,582	26,146	18,933	15,120	15,363
United States—						
Ores, matte, blister, etc. ( <i>Cu content</i> ) .. ..	1,261	34,562	58,027	1,051	54,944	55,826
Unwrought—						
Unrefined .. ..	657	18,733	14,062	3,875	6,969	7,081
Refined .. ..	243,809	142,280	214,951	178,811	197,513	200,682
Unwrought alloys .. ..	1,287	1,082	689	297	188	191
Scrap .. ..	16,043	15,729	30,455	6,779	14,782	15,019
do. alloys .. ..	38,991	57,926	76,731	69,945	98,542	100,123
Semi-manufactures .. ..	17,820	19,380	14,014	21,291	21,356	21,698
do. alloys .. ..						
Sulphate .. ..	3,181	964	828	2,792	<i>n.a.</i>	<i>n.a.</i>
Argentina—						
Ores .. ..	263	138	277	—	<i>n.a.</i>	<i>n.a.</i>
Bolivia—						
Ore, etc. ( <i>Cu content</i> ) ..	5,612	6,229	6,790	7,775	8,800	8,900
Chile—						
Ores and concentrates .. ..	30,525	29,790	33,800	40,200	38,100	38,700
Precipitate .. ..						
Unwrought—						
Blister .. ..	231,371	236,924	220,000	185,000	187,000	190,000
Refined .. ..	94,339	83,668	80,000	80,000	420,000	430,000
Electrolytic .. ..	218,024	271,874	280,000	336,000		
Semi-manufactures .. ..	33,014	8,799	11,000	6,000	10,800	11,000
Peru—						
Ore ( <i>Cu content</i> ) .. ..	22,763	25,078	20,249	109,462	<i>n.a.</i>	<i>n.a.</i>
Matte, etc. ( <i>do.</i> ) .. ..	543	753	285	974	<i>n.a.</i>	<i>n.a.</i>
Precipitate ( <i>do.</i> ) .. ..						
Unwrought ( <i>do.</i> ) .. ..	150,051	164,230	142,648	158,651	<i>n.a.</i>	<i>n.a.</i>
Burma—						
Matte .. ..	99	217	181	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Ore .. ..	15,164	15,421	16,192	10,859	8,882	9,025
Unwrought .. ..	—	—	—	420	1,019	1,035
Japan—						
Unwrought .. ..	1,538	1,386	11,823	14,747	46,316	47,059
Semi-manufactures (a) .. ..	39,116	33,103	31,411	37,585	38,751	39,373
Sulphate .. ..	987	1,402	5,531	443	438	445
Korea (South)—						
Unwrought .. ..	716	308	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Ore and concentrates .. ..	299,300	389,400	392,039	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Scrap .. ..	<i>n.a.</i>	1,926	1,278	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Unwrought .. ..	19,604	15,514	14,900	6,974	4,500	4,600

(a) Including alloys.

## IMPORTS OF COPPER, ETC.\*

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and matte .. ..	456	51	1,252	—	6,135	6,233
Unwrought—						
Electrolytic .. ..	429,249	384,727	382,058	373,833	381,466	387,589
Other refined .. ..	31,798	24,798	26,890	28,414	27,093	27,528
Blister .. ..	37,316	31,060	39,404	43,896	33,155	33,688
Alloys .. ..	134	53	151	252	742	754
Scrap .. ..	1,413	842	2,390	4,700	3,700	3,759
do. alloys .. ..	3,495	1,142	5,540	3,434	8,619	8,757
Semi-manufactures (a)	6,285	7,062	11,546	10,673	12,477	12,677
Malta—						
Semi-manufactures ..	(£113,543)	(£55,001)	(£87,889)	(£107,936)	(£96,936)	(£96,936)
Ghana—						
Semi-manufactures (a)	447	391	440	604	726	738
Kenya—						
Unwrought (a) .. ..	61	43	25	15	45	46
Semi-manufactures (a)	317	544	551	560	2,347	2,385
Sulphate .. ..	76	21	—	—	—	—
Mauritius—						
Semi-manufactures (a)	45	26	50	34	21	21
Nigeria—						
Unwrought and semi-manufactures (a) ..	2,680	2,193	1,190	880	1,700	1,727
Sierra Leone—						
Semi-manufactures (a)	680	28	47	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania—						
Unwrought (a) .. ..	1	1	—	8	—	—
Semi-manufactures (a)	103	111	145	160	212	215
Sulphate .. ..	3	17	—	—	—	—
Uganda—						
Semi-manufactures (a)	155	146	159	285	285	290
Zambia—						
Unwrought (a) .. ..	11	19	42	3	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	466	383	481	409	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	30	223	128	305	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Unwrought .. ..	9,368	4,740	5,201	16,193	12,984	13,192
Scrap (b) .. ..	302	9,503	15,668	2,407	3,367	3,421
Semi-manufactures ..	2,092	1,925	1,919	3,096	2,321	2,358
do. alloys .. ..	3,509	4,111	3,682	10,271	8,489	8,625
Sulphate .. ..	225	416	372	1,248	2,025	2,057
Barbados—						
Semi-manufactures (a)	53	38	31	33	85	86
Jamaica—						
Semi-manufactures (a)	223	209	348	532	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	—	10	—	1	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Semi-manufactures (a)	199	111	107	138	260	264
Sulphate .. ..	20	22	28	9	17	17
Guyana—						
Semi-manufactures (a)	22	66	51	59	44	45
Ceylon—						
Unwrought (a) .. ..	52	123	45	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	564	1,061	783	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Cyprus—						
Semi-manufactures (a)	107	76	132	133	174	177

\*See footnote on p.104 concerning the descriptions "unwrought" copper and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Copper alloys scrap only.

## IMPORTS OF COPPER, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Hong Kong—						
Unwrought (a) .. ..	121	115	199	71	(e) 54	(e) 55
Scrap (a) .. ..	611	2,548	4,075	3,620	3,269	3,321
Semi-manufactures (a) ..	7,626	9,450	12,969	10,894	12,037	12,230
Copper sulphate .. ..	10	82	20	31	43	44
India (d)—						
Unwrought .. ..	19,698	22,461	33,790	41,220	45,771	46,505
do. alloys .. ..	98	141	34	64	36	37
Scrap (a) .. ..	590	1,013	521	481	348	354
Semi-manufactures (a) ..	14,237	15,719	8,517	4,503	5,159	5,242
Malaysia (West)—						
Unwrought (a) .. ..	18	23	32	12	30	30
Semi-manufactures (a) ..	2,390	1,806	2,622	3,191	3,887	3,949
Sulphate .. ..	160	182	150	315	185	188
Sabah—						
Semi-manufactures (a) ..	61	30	49	55	47	48
Sarawak—						
Semi-manufactures (a) ..	167	82	57	n.a.	n.a.	n.a.
Singapore—						
Semi-manufactures (a) ..	1,954	2,186	2,520	2,830	4,546	4,619
Sulphate .. ..	77	85	102	192	180	183
Australia (c)—						
Unwrought .. ..	943	3,078	4,844	118	49	50
do. alloys .. ..	192	46	79	46	48	49
Scrap (a) .. ..	374	1,190	2,052	2,000	2,870	2,916
Semi-manufactures (a) ..	2,110	1,737	1,725	2,042	(f) 1,805	(f) 1,834
Sulphate .. ..	1,276	1,675	1,505	2,032	2,434	2,473
Fiji—						
Semi-manufactures (a) ..	59	47	75	n.a.	n.a.	n.a.
New Zealand (c)—						
Unwrought (a) .. ..	258	173	190	146	168	171
Semi-manufactures (a) ..	15,370	12,739	10,396	10,890	11,483	11,667
Irish Republic—						
Unwrought (a) .. ..	156	146	180	183	153	156
Semi-manufactures (a) ..	7,046	6,213	8,263	8,469	7,797	7,922
Sulphate .. ..	894	630	1,287	1,800	1,622	1,648
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. ..	726	—	—	—	—	—
Unwrought—						
Unrefined .. ..	4,996	4,720	5,186	4,992	5,374	5,460
Refined .. ..	13,907	15,507	16,251	20,885	26,015	26,432
Alloys .. ..	678	167	567	614	915	930
Scrap .. ..	870	397	995	1,287	1,075	1,092
do. alloys .. ..	4,492	4,355	5,608	7,805	12,255	12,452
Semi-manufactures (a) ..	4,087	3,973	3,700	4,210	5,626	5,716
Belgium-Luxemburg						
E.U.—						
Ore .. ..	11,954	10,608	14,204	16,960	20,887	21,222
Unwrought (a) (b) .. ..	338,520	307,634	371,514	341,376	378,671	384,748
Scrap .. ..	55,954	48,569	85,747	83,823	113,307	115,125
Semi-manufactures (a) ..	8,173	8,584	8,312	12,099	12,730	12,934
Sulphate .. ..	236	276	162	287	291	296

(a) Including alloys.

(b) Including matte.

(c) Years ended June 30 of that stated.

(d) Years ended March 31 following that stated.

(e) Excess of re-exports.

(f) Excluding foil.

## IMPORTS OF COPPER, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Bulgaria—						
Sulphate .. ..	<i>n.a.</i>	7,824	10,189	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Denmark—						
Unwrought .. ..	3,924	3,595	3,974	3,616	4,402	4,473
do. alloys .. ..	54	51	153	236	190	193
Scrap (a) .. ..	287	397	302	232	872	886
Semi-manufactures (a)	20,847	22,222	24,850	28,527	31,207	31,708
Sulphate .. ..	2,847	2,206	2,396	2,923	2,550	2,591
Finland—						
Unwrought (a) ..	11,546	6,524	8,026	7,556	14,111	14,338
Semi-manufactures (a)	4,403	4,258	3,614	3,047	5,142	5,225
Sulphate .. ..	1,697	989	636	469	890	904
France—						
Unwrought—						
Unrefined .. ..	6,776	11,426	14,877	15,594	16,209	16,469
Refined .. ..	297,171	231,575	253,820	317,967	310,396	315,377
Alloys .. ..	1,385	1,601	1,691	1,360	1,920	1,951
Scrap .. ..	2,323	1,711	2,372	1,701	2,043	2,076
do. alloys .. ..	16,099	9,603	12,201	11,239	9,998	10,159
Semi-manufactures (a)	20,715	23,258	27,697	39,129	35,495	36,065
Sulphate .. ..	281	127	555	1,909	889	903
Germany (Federal)—						
Ore .. ..	134,604	130,251	202,857	202,552	192,314	195,400
Burnt cupreous pyrites	1,245,012	1,231,635	1,315,544	1,246,234	1,278,157	1,298,668
Matte .. ..	1,609	351	1,189	663	5,448	5,536
Unwrought—						
Unrefined .. ..	144,029	162,164	144,072	142,515	131,211	133,317
Refined .. ..	261,062	267,909	318,726	350,322	378,360	384,432
Alloys .. ..	35,851	42,806	51,954	60,670	54,722	55,600
Scrap (a) .. ..	77,069	82,021	108,877	121,239	111,586	113,377
Semi-manufactures (a)	55,918	32,919	56,768	74,683	78,163	79,417
Sulphate .. ..	2,047	2,176	2,314	4,808	4,760	4,836
Greece—						
Unwrought—						
Unrefined .. ..	592	} 8,309	8,637	9,217	11,438	11,622
Refined .. ..	4,794					
Scrap .. ..	6	17	19	98	88	90
Semi-manufactures	380	414	430	337	410	417
Sulphate .. ..	3,764	2,614	2,792	3,113	1,184	1,203
Hungary—						
Unwrought (b) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	30,951	35,016	35,578
Sulphate .. ..	9,047	11,590	4,769	3,716	3,274	3,327
Iceland—						
Semi-manufactures (a)	192	177	103	85	107	109
Italy—						
Unwrought—						
Unrefined .. ..	2,743	4,352	1,505	2,905	4,094	4,160
Refined (a) .. ..	212,183	226,351	217,622	258,369	297,914	302,695
Scrap (a) .. ..	38,941	32,947	41,464	44,415	46,701	47,451
Semi-manufactures (a)	10,600	10,259	10,265	12,080	16,200	16,460
Sulphate .. ..	2,728	2,643	1,287	3,174	4,370	4,440
Netherlands—						
Unwrought .. ..	28,601	30,510	7,268	10,538	12,522	12,723
do. alloys .. ..	2,102	2,245	3,482	3,721	3,607	3,665
Scrap (a) .. ..	8,574	10,615	7,577	7,310	9,429	9,580
Semi-manufactures (a)	60,034	49,289	61,648	67,734	70,186	71,312
Sulphate .. ..	2,636	2,729	2,669	3,058	3,604	3,662
Norway—						
Copper-nickel matte ..	60,405	52,673	76,488	68,734	93,081	94,575
Unwrought .. ..	4,643	3,502	3,092	2,295	605	615
do. alloys .. ..	365	554	499	391	491	499
Scrap (a) .. ..	5	3	54	7	149	152
Semi-manufactures (a)	23,298	22,786	20,240	23,355	28,095	28,546
Sulphate .. ..	1,397	1,148	578	940	678	689

(a) Including alloys.

(b) Including semi-manufactures.



## IMPORTS OF COPPER, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Poland—</b>						
Concentrates .. ..	20,552	18,337	17,057	14,425	<i>n.a.</i>	<i>n.a.</i>
Unwrought .. ..	35,887	37,098	34,886	25,862	21,554	21,900
Sulphate .. ..	2,917	3,012	2,051	3,131	1,999	2,031
<b>Portugal—</b>						
Ore and concentrates ..	—	—	26	1,046	11	11
Matte .. ..	—	3,912	—	—	2	2
Unwrought (a) .. ..	6,321	3,833	2,939	5,035	7,662	7,785
Scrap .. ..	117	78	19	943	1,599	1,625
Semi-manufactures (a) ..	6,727	5,954	6,756	7,958	8,254	8,386
Sulphate .. ..	74	644	395	373	218	222
<b>Spain—</b>						
Ore .. ..	22,462	33,271	65,666	64,640	71,289	72,433
Unwrought (a) .. ..	53,082	59,285	61,147	70,551	72,895	74,065
Scrap (a) .. ..	19,372	11,002	25,133	19,386	16,347	16,609
Semi-manufactures (a) ..	16,970	6,208	5,736	6,503	6,967	7,079
Sulphate .. ..	128	31	6	2,608	133	135
<b>Sweden—</b>						
Ore .. ..	73,755	61,734	45,532	50,590	59,066	60,014
Matte .. ..	9,114	17,471	18,587	24,644	18,981	19,286
Unwrought—						
Unrefined .. ..	54,791	63,261	8,755	8,621	4,056	4,121
Refined .. ..			67,631	61,362	60,726	61,701
Alloys .. ..	2,738	2,636	3,022	3,186	3,921	3,984
Scrap (a) .. ..	9,518	6,729	9,421	12,708	8,077	8,207
Semi-manufactures (a) ..	32,081	18,306	18,459	20,006	28,422	28,878
Sulphate .. ..	42	106	356	483	514	522
<b>Switzerland—</b>						
Unwrought .. ..	41,330	40,408	36,820	37,349	47,856	48,624
do. alloys .. ..	1,165	1,409	1,104	3,180	2,906	2,953
Scrap (a) .. ..	538	550	628	503	391	397
Semi-manufactures (a) ..	23,193	20,865	21,972	26,840	43,263	43,957
Sulphate .. ..	412	445	218	803	464	471
<b>U.S.S.R.—</b>						
Unwrought .. ..	7,300	13,779	9,252	394	1,005	1,021
<b>Yugoslavia—</b>						
Unwrought .. ..	3,536	15,546	20,901	31,334	40,759	41,413
Semi-manufactures (a) ..	4,838	5,283	6,701	7,829	11,169	11,348
Scrap .. ..	9,354	1,148	1,050	1,852	1,815	1,844
<b>Angola—</b>						
Semi-manufactures (a) ..	770	558	556	586	400	406
Sulphate .. ..	25	18	17	48	27	27
<b>Egypt—</b>						
Unwrought and scrap ..	4,133	618	1,228	1,491	1,615	1,641
Semi-manufactures (a) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,013	82	83
<b>Malagasy Republic—</b>						
Semi-manufactures (a) ..	96	89	165	533	147	149
<b>Morocco—</b>						
Semi-manufactures (a) ..	2,236	2,245	2,483	2,665	3,226	3,278
<b>Mozambique—</b>						
Semi-manufactures (a) ..	701	528	365	401	539	548
<b>South Africa—</b>						
Ore and concentrates ..	6,143	8,279	58,150	9,244	7,255	7,372
Unwrought .. ..	38,495	32,119	9,994	2,649	1,106	1,123
do. alloys .. ..			4,191	2,367	1,241	2,601
Semi-manufactures (a) ..	3,973	4,191	2,367	1,241	2,601	2,642
<b>Sudan—</b>						
Semi-manufactures .. ..	59	18	155	232	55	56
Sulphate .. ..	3	353	382	2	13	13
<b>Tunisia—</b>						
Semi-manufactures (a) ..	538	1,161	492	940	1,087	1,104
Sulphate .. ..	94	123	189	86	136	138

(a) Including alloys.

## IMPORTS OF COPPER, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Costa Rica—						
Semi-manufactures (a)	280	237	211	95	437	444
Sulphate .. ..	26	28	20	29	22	22
Guatemala—						
Semi-manufactures (a)	104	151	94	238	164	167
Sulphate .. ..	8	53	35	30	76	77
Honduras—						
Sulphate .. ..	45	99	106	147	116	118
Mexico—						
Unwrought (a) ..	12	10	13	13	40	41
Semi-manufactures (a)	633	582	731	595	845	859
Nicaragua—						
Semi-manufactures ..	129	174	118	66	103	105
Salvador—						
Semi-manufactures ..	1,712	1,621	1,525	797	1,221	1,241
United States (b)—						
Cu content of—						
Ore and concentrates	10,358	31,851	64,183	3,203	58,485	59,424
Matte, precipitate, etc.	331	362	102	6	n.a.	n.a.
Unwrought—						
Blister .. ..	398,418	241,361	267,037	215,810	200,257	203,471
Refined .. ..	145,637	294,722	360,420	117,166	117,956	119,849
Scrap .. ..	14,618	2,344	6,466	5,256	1,188	1,207
do. alloys .. ..	6,571	5,954	3,944	2,673	872	886
Semi-manufactures ..	109,141	66,379	90,498	69,958	69,558	70,674
do. alloys .. ..						
Sulphate .. ..	n.a.	137	253	n.a.	330	335
Argentina—						
Unwrought .. ..	13,941	12,102	15,274	22,996	22,524	22,885
Brazil—						
Unwrought (a) ..	42,229	35,861	42,141	46,331	49,838	50,638
Semi-manufactures (a)	494	264	514	897	2,538	2,579
Sulphate .. ..	3,115	1,970	2,370	2,201	2,627	2,669
Colombia—						
Unwrought .. ..	547	535	1,090	n.a.	n.a.	n.a.
Semi-manufactures (a)	5,060	3,566	3,132	n.a.	n.a.	n.a.
Sulphate .. ..	45	3	7	n.a.	n.a.	n.a.
Peru—						
Semi-manufactures (a)	887	6,774	592	n.a.	n.a.	n.a.
Sulphate .. ..	104	42	4	n.a.	n.a.	n.a.
Uruguay—						
Unwrought .. ..	600	792	410	744	803	816
Venezuela—						
Semi-manufactures (a)	7,767	6,774	7,337	6,520	n.a.	n.a.
Sulphate .. ..	46	22	63	97	n.a.	n.a.

(a) Including alloys.

(b) The figures shown are imports for consumption. According to the U.S. Bureau of Mines, general imports, which also include material entering the country under bond, were as follows (long tons Cu content):

	1966	1967	1968	1969	1970	Tonnes 1970
Ore and concentrates	37,117	32,372	24,152	34,595	29,233	29,701
Matte .. ..	331	79	454	289	n.a.	n.a.
Unwrought—						
Blister .. ..	319,495	265,068	241,712	212,454	200,248	203,460
Refined .. ..	145,180	295,152	357,391	117,117	119,849	121,771
Scrap .. ..	25,934	14,610	10,196	5,258	1,123	1,141

## IMPORTS OF COPPER, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Burma—</b>						
Semi-manufactures (a)	174	122	116	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Formosa—</b>						
Unwrought (a) ..	975	1,183	2,316	2,062	4,337	4,407
Semi-manufactures (a)	3,829	2,372	2,550	3,426	4,575	4,648
<b>Iran (b)—</b>						
Unwrought (a) ..	421	4,923	3,071	82	37	38
Scrap .. .. .	44	71	41	55	159	162
Semi-manufactures (a)	3,660	6,761	6,601	8,916	10,619	10,789
<b>Iraq—</b>						
Semi-manufactures (a)	2,934	1,190	1,515	1,954	1,288	1,309
<b>Japan—</b>						
Ore and concentrates ..	680,196	1,006,011	1,044,331	1,101,841	1,540,562	1,565,283
Matte .. .. .	25,706	24,522	23,594	30,018	23,240	23,613
Unwrought .. .. .	133,090	258,380	279,925	343,804	297,240	302,010
do. alloys .. .. .	14,211	13,379	7,001	11,579	11,032	11,209
Scrap .. .. .	9,699	13,023	7,381	6,717	6,719	6,827
do. alloys .. .. .	65,827	62,873	49,711	42,832	57,972	58,902
Semi-manufactures (a)	7,682	1,730	1,984	4,747	2,284	2,321
Sulphate .. .. .	520	—	—	—	4	4
<b>Jordan—</b>						
Semi-manufactures (a)	127	236	187	148	<i>n.a.</i>	<i>n.a.</i>
<b>Korea (South)—</b>						
Unwrought and						
Semi-manufactures ..	351	2,084	2,114	2,108	4,803	4,880
Scrap .. .. .	784	1,328	1,305	1,161	797	810
<b>Lebanon—</b>						
Semi-manufactures (a)	480	587	576	844	1,161	1,180
<b>Philippine Republic—</b>						
Semi-manufactures (a)	4,495	5,082	4,784	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Thailand—</b>						
Unwrought (a) ..	388	361	219	478	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	3,568	5,082	5,122	4,255	<i>n.a.</i>	<i>n.a.</i>
<b>Turkey—</b>						
Semi-manufactures (a)	507	401	373	318	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	90	—	—	—	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

**DIAMONDS**  
**PRODUCTION OF DIAMONDS†**

Metric carats

Producing Country	1966	1967	1968	1969	1970
<b>COMMONWEALTH COUNTRIES</b>					
Ghana (b) .. ..	2,815,500	2,537,500	2,447,100	2,390,900	2,523,000
Lesotho (a) .. ..	12,506	21,737	11,914	29,787	16,539
Sierra Leone .. ..	1,436,722	1,160,102	2,432,770	2,000,849	2,048,264
Tanzania .. ..	946,656	926,757	702,395	777,289	708,145
Guyana .. ..	98,887	97,351	66,311	51,549	61,001
India .. ..	2,113	7,626	8,658	11,794	19,869
<b>TOTAL .. ..</b>	<b>5,312,000</b>	<b>4,751,000</b>	<b>5,797,000</b>	<b>5,262,000</b>	<b>5,377,000</b>
<b>OTHER COUNTRIES</b>					
Angola—					
Gem .. ..	967,972	982,868	1,316,411	1,545,866	1,560,702
Industrial .. ..	300,169	305,632	350,776	475,667	834,850
Congo (Kinshasa)—					
Gem .. ..	11,483	263,000	1,787,000	1,802,000	1,649,000
Industrial .. ..	12,417,000	13,153,602	11,352,733	11,621,000	12,438,000
Central African Republic	539,935	520,628	609,360	(a) 526,908	482,447
Ivory Coast .. ..	183,435	175,825	187,009	202,414	212,808
South Africa .. ..	6,036,677	6,667,607	7,433,318	7,862,837	8,111,533
South West Africa .. ..	1,758,956	1,700,000	1,722,000	1,840,500	1,800,000
Venezuela .. ..	84,695	69,630	111,720	193,784	200,000
<b>TOTAL* .. ..</b>	<b>23,000,000</b>	<b>24,000,000</b>	<b>24,000,000</b>	<b>26,000,000</b>	<b>28,000,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>28,000,000</b>	<b>29,000,000</b>	<b>30,000,000</b>	<b>32,000,000</b>	<b>33,000,000</b>

†For values see next page.

\*Including an estimate for diamonds produced in Brazil but excluding diamonds produced in the U.S.S.R., Liberia and Indonesia.

Note—Estimated production of synthetic diamond in the United States was as follows (metric carats):  
1966—6,000,000; 1967—8,000,000; 1968—11,000,000; 1969—13,000,000; 1970—15,000,000.

(a) Exports.

(b) Production was shared by Companies and African diggers as follows (metric carats):

	Companies	African diggers
1966 ..	2,772,000	47,000
1967 ..	2,519,000	18,800
1968 ..	2,431,900	15,200
1969 ..	2,383,600	7,300
1970 ..	n.a.	n.a.

PRODUCTION OF DIAMONDS†

£ sterling

Producing Country	1966	1967	1968	1969	1970
<b>COMMONWEALTH COUNTRIES</b>					
Ghana (b) .. ..	7,637,000	6,303,000	7,984,000	5,465,597	3,709,000
Lesotho .. .. .	(a) 348,603	(a) 508,328	(a) 219,585	(a) 684,167	(a) 380,355
Sierra Leone .. .	b17,038,000	b14,870,785	23,466,517	30,457,614	b21,000,000
Tanzania (b) .. .	9,439,000	11,147,000	8,129,449	10,317,000	9,241,000
Guyana .. .. .	(b)1,110,000	b 1,701,000	(b)920,748	722,000	(b) 850,000
India .. .. .	86,000	158,000	(c) 182,000	442,000	409,000
<b>TOTAL .. .. .</b>	<b>35,659,000</b>	<b>34,688,000</b>	<b>39,034,000</b>	<b>47,892,000</b>	<b>35,590,000</b>
<b>OTHER COUNTRIES</b>					
Angola .. .. .	14,537,610	b14,856,400	c19,000,000	c25,000,000	c30,000,000
Congo (Kinshasa)— Gem .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.
Industrial .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.
Central African Republic	(b)5,698,000	5,361,000	7,542,000	6,072,000	5,499,000
Ivory Coast (b) .. .	649,000	(c)1,310,000	(c)1,576,000	(c)1,568,000	(c)1,648,000
South Africa (c) .. .	32,727,000	29,355,000	44,700,000	60,000,000	44,000,000
South West Africa (c) .. .	43,952,000	n.a.	n.a.	n.a.	n.a.
Venezuela (b) .. .	1,158,000	952,000	1,528,000	2,650,000	3,000,000
<b>TOTAL* .. .. .</b>	<b>112,000,000</b>	<b>109,000,000</b>	<b>120,000,000</b>	<b>130,000,000</b>	<b>140,000,000</b>
<b>WORLD'S TOTAL* .. .</b>	<b>147,000,000</b>	<b>144,000,000</b>	<b>160,000,000</b>	<b>180,000,000</b>	<b>180,000,000</b>

†For quantities in metric carats see previous page.

\*Including an estimate for diamonds produced in Brazil.

(a) Exports.

(b) Estimated on export value (f.o.b.).

(c) Estimated.

SALES OF DIAMONDS

Sales effected through the Central Selling Organisation of the Diamond Corporation Ltd. were as follows:

		(£ sterling)
		Gem and Industrial
1966 .. .. .	.. .. .	177,845,823
1967 .. .. .	.. .. .	178,763,764
1968 .. .. .	.. .. .	250,129,109
1969 .. .. .	.. .. .	288,538,255
1970 .. .. .	.. .. .	220,510,610
1971 .. .. .	.. .. .	256,889,873

EXPORTS OF DIAMONDS

Exporting Country and Description	1966	1967	1968	1969	1970
<b>COMMONWEALTH COUNTRIES</b>					
United Kingdom—					
Diamonds ..	£ 196,109,871	188,297,234	271,674,457	328,374,760	252,140,349
Ghana—					
Industrial diamonds Ct.	1,998,683	1,989,890	2,996,511	2,477,414	2,871,971
£	5,421,633	4,944,000	7,117,217	5,662,475	4,209,518
Sierra Leone ..	Ct. 1,319,326	1,161,063	2,432,770	1,863,550	1,276,656
£	15,645,912	14,878,774	23,465,517	27,101,942	15,985,608
Tanzania ..					
Gem diamonds ..	Ct. 452,988	Ct. 987,605	Ct. 682,651	Ct. 780,211	Ct. 719,617
£	7,698,478				
Industrial diamonds Ct.	451,414	£11,146,500	£7,900,930	£10,356,000	£9,391,600
£	1,301,550				
Guyana ..	Ct. 92,085	72,948	70,724	56,486	61,081
£	1,062,063	1,282,182	982,024	791,324	702,971
India (b)—					
Gem diamonds	£ 5,352,306	7,874,865	16,525,311	14,351,593	15,697,560
Malaysia (West)—					
Cut and polished	£ 1,804	—	—	1,669	26,250
Australia (a)—					
Gem diamonds	Ct. 81	122	56	16	54
£	3,061	12,000	1,314	2,800	2,800
<b>OTHER COUNTRIES</b>					
Belgium-Luxemburg					
E.U.—					
Cut and polished	Ct. 1,646,844	1,643,915	1,765,745	1,788,816	1,894,946
£	89,378,579	91,188,586	114,424,741	129,294,625	121,604,000
Industrial, rough and					
bort ..	Ct. 12,075,495	11,887,839	13,129,084	13,443,577	12,041,310
£	37,762,590	41,479,746	56,527,741	61,769,284	59,017,000
France—					
Uncut ..	£ 682,941	586,514	802,012	681,320	n.a.
Cut ..	£ 1,553,013	1,283,526	2,230,242	4,102,469	3,483,121
Industrial diamonds	£ 3,644	74	144	75	n.a.
Dust ..	£ 62,158	149,570	157,736	160,540	76,894
Netherlands ..	Ct. 1,309,679	1,513,823	1,220,263	1,331,930	1,409,801
£	12,944,895	10,482,423	12,609,576	13,571,133	12,047,500
Dust ..	Ct. 1,078,617	1,118,363	1,272,792	1,640,110	2,570,560
£	1,014,840	1,055,440	1,293,854	1,664,078	2,559,277
Sweden—					
Industrial diamonds	£ 109,700	20,786	1,600	2,300	13,531
Angola ..	Ct. 1,264,020	1,315,890	1,530,434	1,980,394	2,502,688
£	13,992,259	15,178,147	19,735,666	26,712,647	33,914,308
Central African					
Republic ..	Ct. 552,451	479,025	634,627	536,790	471,800
£	5,829,775	4,929,308	7,901,000	6,186,000	5,176,000
Congo (Brazza) ..	Ct. 4,252,000	4,154,000	4,343,000	n.a.	n.a.
£	n.a.	n.a.	n.a.	n.a.	n.a.
Ivory Coast ..	Ct. 181,090	191,285	181,475	316,630	215,205
£	640,700	595,800	669,830	777,765	618,296
Liberia ..	Ct. 555,000	1,025,625	792,985	835,952	825,959
£	1,954,000	5,379,000	3,780,503	3,680,000	2,394,590
South Africa (c)—					
Uncut ..	Ct. 2,630,320	2,776,500	3,170,853	3,434,565	2,971,204
£	60,848,827	58,926,628	81,624,810	88,917,099	65,194,285
Cut and polished	Ct. 174,701	184,670	224,325	255,363	248,304
£	18,132,667	19,749,624	28,964,079	37,712,826	33,807,191

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) In addition synthetic diamonds were exported as follows:

	1966	1967	1968	1969	1970
Ct. ..	2,487,050	1,971,751	2,798,985	4,443,338	4,641,938
£ ..	621,479	1,115,288	2,803,037	3,304,709	3,453,772

EXPORTS OF DIAMONDS (cont.)

Exporting Country and Description	1966	1967	1968	1969	1970
<b>OTHER COUNTRIES</b> (cont.)					
United States—					
Uncut .. .. Ct.	85,897	58,832	122,306	149,954	93,937
£	1,495,184	1,056,717	2,344,352	3,458,124	2,214,095
Cut .. .. Ct.	114,941	128,077	156,201	183,353	294,026
£	19,520,407	20,948,620	37,163,524	47,488,868	46,204,684
Industrial diamonds Ct.	1,097,346	147,564	299,945	344,801	338,921
£	1,600,202	335,300	480,478	680,728	765,808
Bort .. .. Ct.	57,958	17,765	26,493	45,223	33,470
£	116,495	76,021	70,178	110,364	64,278
Brazil .. .. Ct.	35,515	4,245	n.a.	10,000	n.a.
£	378,863	89,000	n.a.	n.a.	n.a.
Israel—					
Polished.. .. Ct.	1,450,017	1,448,627	1,701,000	1,775,000	1,778,000
£	67,856,000	70,025,500	95,522,083	105,644,000	101,912,000
Japan—					
Industrial diamonds Ct.	361,085	473,315	76,760	118,230	79,815
£	356,803	563,708	187,242	167,865	259,071
Cut and polished Ct.	587,105	647,920	3,015	325	330
£	233,554	391,420	40,677	45,004	99,392

## IMPORTS OF DIAMONDS

Importing Country and Description	1966	1967	1968	1969	1970
<b>COMMONWEALTH COUNTRIES</b>					
United Kingdom	£ 187,340,191	213,397,699	291,531,536	327,773,189	305,886,615
Malta—					
Rough diamonds	£ 3,399	1,836	1,519	321	11,866
Cut and polished	£ 6,421	6,733	7,080	4,887	6,012
Zambia—					
Industrial diamonds	Ct. 17,505	11,750	n.a.	n.a.	n.a.
	£ 26,261	20,015	n.a.	n.a.	n.a.
Canada—					
Unset (b) .. Ct.	68,147	72,754	79,802	89,582	76,883
(b)	£ 4,065,008	4,514,245	5,577,353	6,384,000	5,227,000
Dust, bort, etc... Ct.	1,398,853	1,383,487	1,413,789	1,696,930	1,613,569
	£ 2,443,118	2,479,746	2,668,619	3,180,000	3,159,000
Hong Kong—					
Gem diamonds.. Ct.	310,798	286,568	377,317	435,109	424,489
	£ 14,971,776	15,315,089	24,624,231	28,917,249	24,317,931
Industrial diamonds	£ (a) 6,649	(a) 1,197	22,878	26,115	97,597
India (c)—					
Gem diamonds ..	£ 669,572	2,210,007	12,482,539	11,917,756	10,687,377
Industrial and bort	£ 379,549	603,128	393,717	332,747	470,222
Malaysia (West)—					
Gem diamonds	£ 615,844	491,269	528,600	560,957	658,859
Australia (d)—					
Industrial diamonds	Ct. 405,453	490,794	541,389	633,221	892,281
	£ 595,000	736,400	945,318	1,138,000	1,505,000
Other diamonds	Ct. 29,494	25,841	25,449	33,831	31,786
	£ 1,404,000	1,574,000	1,692,198	2,269,000	2,304,821
New Zealand (d)—					
Industrial diamonds	£ 11,406	16,830	18,287	15,440	n.a.
Other diamonds	£ 213,766	202,626	153,988	551,096	n.a.
<b>OTHER COUNTRIES</b>					
Belgium-Luxemburg					
E.U.—					
Rough diamonds	Ct. 7,134,069	6,971,660	9,347,950	9,976,847	8,612,218
	£ 65,232,682	58,994,400	97,963,075	115,431,200	81,461,500
Cut diamonds ..	Ct. 566,405	597,876	833,335	1,012,036	1,184,162
	£ 40,872,859	41,189,797	63,767,650	87,510,016	55,465,500
Industrial, rough and bort ..	Ct. 10,297,150	9,530,780	10,582,335	20,608,162	8,216,925
	£ 20,602,264	18,982,312	24,312,050	33,095,949	18,349,270
France—					
Uncut .. .. Ct.	n.a.	r 57,875	r 68,475	61,230	184,020
	£ 2,863,688	r 1,022,721	r 1,330,070	1,393,147	2,769,917
Cut and polished	Ct. n.a.	82,675	99,165	108,445	109,805
	£ 6,379,727	6,136,175	13,710,425	13,290,195	10,163,990
Industrial diamonds	Ct. n.a.	r 863,100	r 1,002,170	835,855	724,325
	£ 8,161	r 1,880,329	r 2,430,416	2,601,142	2,557,764
Dust .. .. Ct.	n.a.	1,330,045	1,287,545	1,846,375	1,846,460
	£ 1,148,510	1,239,787	1,448,231	1,893,187	1,947,486
Netherlands ..	Ct. 1,544,472	1,647,356	1,275,966	1,455,132	1,805,392
	£ 12,257,024	11,063,001	12,383,978	12,549,378	11,827,900
Dust .. .. Ct.	1,177,370	764,936	1,416,527	1,527,731	2,410,358
	£ 1,152,454	671,437	1,336,901	1,450,161	2,347,400
Norway .. .. Ct.	5,000	40,000	15,000	5,000	30,000
	£ 2,954	3,159	589	700	233
Sweden—					
Industrial diamonds	£ 462,800	379,354	277,706	429,929	480,831

(a) Excess of re-exports.

(b) Excluding uncut.

(c) Years ended March 31 following that stated.

(d) Years ended June 30 of that stated.



IMPORTS OF DIAMONDS (cont.)

Importing Country and Description	1966	1967	1968	1969	1970
<b>OTHER COUNTRIES</b>					
<i>(cont.)</i>					
Yugoslavia—					
Industrial diamonds Ct.	252,150	372,285	51,800	70,085	109,660
£	102,265	78,211	37,400	78,880	147,720
South Africa—					
Rough diamonds ..	(a)	(a)	(a)	(a)	(a)
Cut and polished Ct.	1,477	1,868	4,265	4,552	7,081
£	51,620	104,919	245,508	197,823	310,331
Mexico—					
Uncut .. .. Ct.	n.a.	5,815	11,580	800	1,830
£	n.a.	n.a.	n.a.	21,600	44,300
Industrial diamonds Ct.	n.a.	35,000	50,000	80,000	n.a.
£	n.a.	n.a.	n.a.	212,100	n.a.
United States—					
Uncut .. .. Ct.	2,032,432	2,505,763	2,514,362	2,931,969	2,632,739
£	74,480,654	77,231,000	105,272,230	119,819,136	97,568,180
Cut and polished Ct.	1,451,596	1,454,992	1,833,935	1,757,211	1,641,875
£	59,335,818	63,326,000	92,699,401	90,450,534	79,472,275
Industrial diamonds Ct.	7,408,160	6,043,093	4,248,560	4,731,179	5,882,673
£	14,293,492	12,735,000	15,328,327	12,415,217	13,768,027
Dust .. .. Ct.	5,453,374	4,752,930	5,643,130	5,400,492	4,966,279
£	4,639,805	3,910,000	5,220,266	4,954,225	4,341,999
Bort, manufactured Ct.	3,336,252	4,254,996	685,639	357,002	363,061
£	2,892,237	3,651,000	640,408	382,318	414,356
Argentina—					
Industrial diamonds Ct.	60,000	1,290,000	400,000	n.a.	215,000
£	34,300	20,200	40,500	48,300	n.a.
Dust .. .. Ct.	3,000	5,000	56,000	76,000	80,000
£	11,100	18,100	18,200	15,700	n.a.
Israel—					
Rough diamonds Ct.	3,125,000	3,090,000	3,873,000	4,304,000	3,207,000
£	49,712,000	50,028,000	75,220,000	87,653,000	72,830,000
Industrial diamonds Ct.	624,000	588,000	549,000	659,000	404,000
£	2,091,000	1,763,000	2,034,000	2,438,000	1,285,000
Bort .. .. Ct.	699,000	765,000	674,000	707,000	678,000
£	490,000	576,000	563,000	605,000	588,000
Japan—					
Industrial diamonds Ct.	524,055	734,010	753,000	651,000	771,000
£	2,420,110	3,381,502	4,973,408	4,619,700	5,525,600
Uncut .. .. Ct.	32,705	24,195	3,330	12,940	10,485
£	213,270	223,055	87,396	432,894	321,100
Cut and polished Ct.	247,495	469,055	315,155	570,830	254,230
£	13,775,084	15,175,187	22,347,244	25,376,000	31,638,200
Dust .. .. Ct.	1,741,990	1,983,410	1,877,565	1,997,800	1,954,125
£	1,789,325	1,925,186	2,127,989	2,182,000	2,119,300

(a) Total imports and re-exports were as follows :

	Total imports		Re-exports	
	Carats	£	Carats	£
1966	13,286,020	14,757,100	19,850,338	23,549,404
1967	19,140,474	18,639,679	19,683,575	25,096,779
1968	3,705,161	9,832,317	7,410,048	16,478,269
1969	3,131,499	7,198,959	9,185,449	23,605,939
1970	3,413,320	6,333,593	7,723,879	15,334,595

**DIATOMACEOUS EARTH**  
**PRODUCTION OF DIATOMACEOUS EARTH**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	14,697	12,484	14,701	12,778	13,545	13,762
Kenya .. .. .	1,744	1,856	2,022	2,267	1,576	1,601
Canada (a) .. ..	62	<i>n.a.</i>	465	435	(b) 429	(b) 435
Australia .. .. .	<i>r</i> 7,592	<i>r</i> 8,341	<i>r</i> 6,725	2,374	2,246	2,282
New Zealand .. ..	4,660	1,408	2,033	2,129	2,143	2,177
<b>OTHER COUNTRIES</b>						
Austria .. .. .	3,695	3,599	2,932	1,737	3,712	3,772
Denmark—						
Diatomaceous earth (b)	6,862	9,267	11,938	9,000	8,238	8,370
Moler .. .. .	(b) 92,747	(c) 94,352	(b) 86,454	(c) 82,529	90,380	91,830
Finland .. .. .	1,181	1,594	1,948	1,960	655	666
France (f) .. .. .	139,027	157,103	167,955	157,907	(e) 169,000	(e) 172,000
Germany (Federal) ..	50,525	55,595	54,638	52,149	37,651	38,255
Italy .. .. .	61,725	59,007	59,100	58,793	(e) 60,000	(e) 60,000
Portugal (f) .. .. .	3,433	4,038	3,444	2,761	3,145	3,195
Spain (f) .. .. .	16,319	16,860	11,081	8,320	<i>n.a.</i>	<i>n.a.</i>
Sweden .. .. .	473	509	500	591	590	600
Yugoslavia (e) .. ..	10,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Algeria .. .. .	15,579	17,975	<i>r</i> 21,030	10,378	(e) 12,000	(e) 12,000
Egypt .. .. .	<i>n.a.</i>	<i>n.a.</i>	1,201	1,279	1,000	1,000
Mozambique .. .. .	32	5	206	118	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	214	576	614	505	835	848
Costa Rica .. .. .	(e) 2,900	(e) 10,000	(e) 10,000	(e) 15,000	(e) 19,000	(e) 19,000
United States .. .. .	(d) 560,000	(d) 560,000	(d) 560,000	534,358	533,603	542,162
Argentina .. .. .	10,770	8,017	6,443	10,176	(e) 10,000	(e) 10,000
Peru .. .. .	2,880	3,610	<i>r</i> 2,974	20,271	(b) 21,000	(b) 21,000
Korea (South) .. ..	252	2,203	2,179	2,869	2,543	2,584

Diatomaceous earth is known to have been produced in Hungary, Norway, Roumania, U.S.S.R., Brazil and Japan.

- (a) Shipments.
- (b) Estimated.
- (c) Exports.
- (d) Estimated average annual production 1966-1968.
- (e) United States Bureau of Mines' estimate.
- (f) Including tripoli.

EXPORTS OF DIATOMACEOUS EARTH

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	763	723	525	609	604	614
<b>OTHER COUNTRIES</b>						
Austria .. .. .	253	239	251	105	52	53
Belgium-Luxemburg						
E.U. .. .. .	839	856	288	393	826	839
Denmark—						
Diatomaceous earth ..	7,966	10,290	9,419	8,937	8,323	8,457
Moler .. .. .	92,747	94,352	86,513	82,529	90,441	91,892
Moler bricks .. .. .	38,811	34,712	33,186	36,568	43,059	43,750
Finland .. .. .	134	96	27	57	43	44
France .. .. .	19,471	16,865	17,685	14,634	15,732	15,985
Germany (Federal) ..	4,984	3,559	5,230	5,796	4,695	4,770
Italy .. .. .	1,503	1,616	3,426	1,945	1,475	1,499
Netherlands .. .. .	131	267	1,288	250	435	442
Norway .. .. .	25	—	2	60	5	5
Portugal .. .. .	334	280	249	234	118	120
Spain .. .. .	949	1,038	2,072	1,380	1,713	1,741
Sweden .. .. .	101	217	102	131	127	129
Yugoslavia .. .. .	3,504	1,651	1,398	1,217	609	619
Algeria .. .. .	7,051	6,682	11,717	6,109	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	244	414	<i>n.a.</i>	83	241	245
United States .. .. .	128,313	132,571	149,580	156,782	137,446	139,652
Japan .. .. .	429	647	761	1,975	1,005	1,021

## IMPORTS OF DIATOMACEOUS EARTH

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a)	42,363	46,467	42,640	39,220	44,841	45,561
Canada .. .. .	26,089	29,758	27,393	27,199	34,093	34,640
India (d) .. .. .	1,247	1,929	1,230	1,585	2,616	2,658
Malaysia (West) .. .. .	273	337	294	313	153	155
Australia (b) .. .. .	5,028	5,082	4,733	6,095	8,097	8,227
New Zealand (b) .. .. .	785	819	870	989	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Austria .. .. .	2,721	2,318	2,112	2,221	2,593	2,635
Belgium-Luxemburg E.U. .. .. .	7,541	6,943	5,846	4,163	5,241	5,325
Denmark .. .. .	2,352	2,488	4,081	4,500	4,224	4,292
Finland .. .. .	905	1,119	1,065	911	1,106	1,124
France .. .. .	8,987	6,994	6,898	6,709	5,729	5,821
Germany (Federal) .. .. .	75,217	68,017	62,415	63,739	69,260	70,372
Greece .. .. .	1,407	1,367	905	1,321	965	981
Iceland .. .. .	968	1,554	650	767	1,397	1,420
Italy .. .. .	9,468	6,112	7,740	4,350	5,994	6,090
Netherlands .. .. .	8,050	7,383	7,914	10,530	8,729	8,869
Norway .. .. .	4,313	4,963	4,167	3,708	2,383	2,421
Portugal .. .. .	1,572	2,022	2,285	2,476	3,198	3,249
Spain .. .. .	1,755	1,412	7,875	5,817	3,167	3,218
Sweden .. .. .	8,636	9,311	8,582	9,657	8,167	8,298
Switzerland .. .. .	2,013	1,918	1,997	2,560	2,002	2,034
Yugoslavia .. .. .	325	585	641	793	1,067	1,084
Angola .. .. .	129	177	153	335	385	391
Egypt .. .. .	1,381	n.a.	n.a.	n.a.	n.a.	n.a.
Morocco .. .. .	735	921	718	1,052	666	677
South Africa .. .. .	3,228	3,529	3,823	3,859	4,223	4,291
Costa Rica .. .. .	457	428	341	433	215	218
Guatemala .. .. .	307	754	507	745	414	421
Honduras .. .. .	82	64	198	467	1,474	1,498
Mexico .. .. .	78	48	224	141	—	—
Salvador .. .. .	405	562	588	509	294	299
Brazil .. .. .	1,993	1,365	673	972	1,215	1,234
Chile (c) .. .. .	450	254	356	n.a.	n.a.	n.a.
Colombia .. .. .	912	906	1,184	n.a.	n.a.	n.a.
Peru (c) .. .. .	3,447	3,373	1,205	1,820	n.a.	n.a.
Uruguay .. .. .	300	305	71	158	335	340
Venezuela .. .. .	2,085	1,897	2,826	3,328	n.a.	n.a.
Israel .. .. .	343	349	540	765	476	484
Japan .. .. .	806	1,276	949	1,464	2,898	2,944
Lebanon .. .. .	1,188	130	290	282	215	218
Philippine Republic .. .. .	n.a.	1,409	1,400	n.a.	n.a.	n.a.
Thailand .. .. .	7	—	—	—	46	47
Turkey .. .. .	20	53	106	47	n.a.	n.a.

(a) Chiefly moler from Denmark.

(b) Years ended June 30 of that stated.

(c) Including tripoli, etc.

(d) Years ended March 31 following that stated.

**FELDSPAR**  
(see also Nepheline Syenite)  
**PRODUCTION OF FELDSPAR**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
China stone .. .. .	29,631	29,720	30,384	32,579	33,135	33,667
Kenya .. .. .	161	396	527	1,535	881	895
Canada .. .. .	9,754	9,280	9,482	11,058	9,821	9,979
Ceylon .. .. .	412	292	577	594	1,273	1,293
Hong Kong .. .. .	1,343	1,135	1,582	1,909	1,595	1,621
India .. .. .	27,530	25,375	33,000	31,712	28,793	29,255
Australia (a) .. .. .	7,259	4,450	r 4,838	4,937	3,328	3,381
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,507	2,441	2,140	1,777	1,187	1,206
Finland .. .. .	25,901	34,472	53,567	52,555	(c) 62,000	(c) 62,000
Germany (Federal) (b) .. .	285,796	261,464	283,258	355,573	402,352	408,809
Italy .. .. .	143,199	145,133	165,722	184,823	174,111	176,905
Norway—						
Unground .. .. .	52,291	96,391	130,590	126,034	(c) 128,000	(c) 130,000
Ground .. .. .	34,457	16,707	26,451	n.a.	n.a.	n.a.
Poland .. .. .	(c) 27,600	(c) 28,000	(c) 28,000	(c) 29,000	n.a.	n.a.
Portugal .. .. .	1,603	26,704	20,339	23,698	30,322	30,809
Spain .. .. .	49,819	46,709	46,522	43,044	n.a.	n.a.
Sweden (d)—						
Unground .. .. .	12,396	9,883	5,100	4,649	8,169	8,300
Ground .. .. .	24,205	25,127	21,800	28,050	23,227	23,600
U.S.S.R. (c) .. .. .	235,000	235,000	235,000	239,000	n.a.	n.a.
Yugoslavia .. .. .	40,914	36,412	43,342	44,272	48,722	49,504
Egypt .. .. .	3,444	n.a.	1,691	3,000	n.a.	n.a.
Ethiopia .. .. .	1,526	3,690	7,017	11,459	n.a.	n.a.
South Africa .. .. .	33,996	24,498	19,574	21,687	18,598	18,896
South West Africa .. .. .	1,179	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico .. .. .	81,400	62,600	79,007	82,174	n.a.	n.a.
United States (d) .. .. .	655,452	615,397	667,679	674,000	648,000	658,000
Argentina .. .. .	21,071	20,029	18,042	21,491	n.a.	n.a.
Chile .. .. .	1,099	857	r 960	974	n.a.	n.a.
Colombia .. .. .	18,779	19,700	20,700	22,050	23,152	23,523
Peru .. .. .	470	2,460	137	1,018	n.a.	n.a.
Uruguay .. .. .	1,722	1,242	405	1,218	1,088	1,105
Japan .. .. .	50,845	49,906	65,101	58,092	63,000	64,000
Korea (South) .. .. .	15,053	16,551	20,661	22,600	n.a.	n.a.
Philippine Republic .. .. .	8,479	n.a.	41,656	34,832	n.a.	n.a.
<b>TOTAL*</b> .. .. .	<b>2,000,000</b>	<b>1,900,000</b>	<b>2,200,000</b>	<b>2,200,000</b>	<b>2,200,000</b>	<b>2,200,000</b>

\*Excluding feldspar known to have been produced in Czechoslovakia, Roumania, Brazil, China and Vietnam.

(a) Including china stone.

(b) Including feldspathic sand obtained as a by-product of china clay washing.

(c) United States Bureau of Mines' estimate.

(d) Sold or used by producers.

EXPORTS OF FELDSPAR

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	3,057	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
India (b) .. .. .	4,587	8,140	11,326	9,840	12,213	12,409
<b>OTHER COUNTRIES</b>						
Austria (a) .. .. .	2,131	404	286	409	701	712
Belgium-Luxemburg						
E.U. (a) .. .. .	73	61	461	5,991	15,178	15,422
Finland (a) .. .. .	21,739	36,063	44,540	45,329	58,968	59,914
France (a) .. .. .	23,096	19,609	21,311	26,822	33,817	34,360
Germany (Federal) (a) ..	11,697	11,891	12,714	14,745	14,061	14,287
Italy .. .. .	23,213	24,176	24,772	26,926	25,461	25,870
Netherlands (a) .. .. .	534	473	1,031	118	181	184
Norway—						
Crude .. .. .	31,614	30,924	35,417	24,411	27,704	28,149
Ground .. .. .	18,087	12,370	14,958	43,190	48,777	49,560
Sweden (a) .. .. .	16,148	13,660	14,050	14,103	16,378	16,641
Yugoslavia .. .. .	20,058	20,305	15,237	17,798	16,574	16,840
South Africa .. .. .	10,677	5,958	6,142	17,152	12,920	13,127
South-West Africa .. .. .	816	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	2,694	3,552	3,349	5,755	3,556	3,613
Korea (South) (a) .. .. .	13,245	28,072	35,605	47,022	77,187	78,426

(a) May include some leucite and nephelite.

(b) Years ended March 31 following that stated.

IMPORTS OF FELDSPAR

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	80,655	72,840	84,654	88,649	102,270	103,911
New Zealand (c) .. .. .	(a) 1,198	(a) 1,656	(a) 1,384	(a) 1,948	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria (b) .. .. .	8,010	7,507	6,117	6,840	7,777	7,902
Belgium-Luxemburg						
E.U. (b) .. .. .	33,160	34,246	39,814	52,554	56,009	56,908
Denmark (b) .. .. .	6,157	4,741	4,894	8,304	10,780	10,953
Finland (b) .. .. .	1,023	1,245	1,173	645	742	754
France (b) .. .. .	15,278	11,757	15,575	28,593	30,841	31,336
Germany (Federal) (b) ..	52,140	47,984	56,737	70,509	80,272	81,560
Italy .. .. .	10,212	16,916	19,820	14,441	18,918	19,222
Netherlands (b) .. .. .	25,638	26,112	31,550	32,355	29,394	29,866
Poland .. .. .	11,281	11,746	12,899	12,817	13,203	13,415
Sweden (b) .. .. .	4,895	5,570	5,004	4,791	7,729	7,853
Morocco (b) .. .. .	<i>n.a.</i>	39	42	127	111	113
Mexico .. .. .	1,439	1,925	2,675	1,927	1,003	1,019
United States .. .. .	3,243	2,783	3,377	4,644	3,247	3,299
Colombia .. .. .	19	17	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	8,399	8,187	9,646	1,812	<i>n.a.</i>	<i>n.a.</i>
Israel .. .. .	1,946	1,624	2,232	1,160	2,602	2,644
Japan .. .. .	4,339	4,635	8,063	4,277	3,822	3,883
Turkey .. .. .	<i>n.a.</i>	263	65	59	<i>n.a.</i>	<i>n.a.</i>

(a) Including fluorspar.

(b) May include some leucite and nephelite.

(c) Years ended June 30 of that stated.

**FLUORSPAR**  
**PRODUCTION OF FLUORSPAR**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	152,211	151,940	r 168,888	187,292	190,218	193,271
Kenya .. ..	n.a.	n.a.	189	1,832	3,842	3,904
Canada .. ..	£728,289	£807,584	£1,003,371	£1,170,304	£1,670,859	£1,670,859
India .. ..	2,056	1,588	1,165	1,850	4,574	4,647
<b>OTHER COUNTRIES</b>						
France (c) .. ..	331,975	385,872	423,400	460,747	467,500	475,000
Germany—						
Federal Republic ..	83,210	85,554	86,358	83,427	73,928	75,114
East (b) .. ..	80,000	80,000	80,000	80,000	n.a.	n.a.
Italy .. ..	r 203,572	201,955	221,379	254,008	284,697	289,266
Spain .. ..	219,035	280,799	304,409	305,514	333,409	338,759
U.S.S.R. (b) .. ..	350,000	375,000	375,000	375,000	n.a.	n.a.
South Africa .. ..	80,595	93,802	106,845	147,903	170,262	172,994
Tunisia .. ..	2,584	2,461	5,364	12,201	19,030	19,335
Mexico .. ..	714,925	772,714	911,000	972,697	963,000	978,000
United States (d) ..	225,954	263,967	225,367	163,134	238,563	242,380
Argentina .. ..	15,834	18,951	21,168	28,913	n.a.	n.a.
China (b) .. ..	225,000	250,000	250,000	250,000	270,000	270,000
Japan .. ..	13,814	15,063	15,478	12,000	n.a.	n.a.
Korea (South) .. ..	31,502	56,068	36,890	38,554	47,025	47,780
Mongolia (b) .. ..	50,000	50,000	60,000	60,000	n.a.	n.a.
Thailand .. ..	47,268	131,049	241,226	293,599	313,201	318,227
Turkey .. ..	1,725	594	1,699	2,061	1,639	1,665
<b>TOTAL .. ..</b>	<b>2,900,000</b>	<b>3,200,000</b>	<b>3,500,000</b>	<b>3,600,000</b>	<b>3,900,000</b>	<b>4,000,000</b>

Fluorspar is also known to have been produced in Belgium, Bulgaria, Burma and North Korea.

(a) Including fluorspar recovered from old lead and zinc mine dumps.

(b) United States Bureau of Mines' estimate.

(c) Crude. Production of saleable crude fluorspar and concentrates was as follows (long tons).

	Tonnes					
	1966	1967	1968	1969	1970	1970
Crude (Saleable) ..	107,087	128,790	135,067	135,452	n.a.	n.a.
Concentrates .. ..	104,946	111,767	121,373	135,754	n.a.	n.a.

(d) Shipments from mine.

EXPORTS OF FLUORSPAR

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. ..	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Finland .. ..	2,371	—	—	—	—	—
France .. ..	87,001	107,381	115,409	100,612	144,143	146,456
Germany (Federal) ..	11,045	9,254	9,194	9,798	7,860	7,986
Italy .. ..	54,403	83,930	107,289	135,303	124,951	126,956
Spain .. ..	128,314	168,515	136,878	198,759	167,739	170,431
Sweden .. ..	348	430	589	298	496	504
Morocco .. ..	<i>n.a.</i>	<i>n.a.</i>	5	11	9	9
South Africa .. ..	56,621	87,323	83,934	111,507	108,728	110,473
Mexico .. ..	731,456	744,335	918,020	959,941	904,943	919,465
United States .. ..	5,118	9,236	11,272	3,219	13,351	13,565
Argentina .. ..	867	339	965	491	668	679
Japan .. ..	268	459	112	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Korea (South) .. ..	38,599	47,422	48,947	36,570	33,097	33,628
Thailand .. ..	72,507	124,120	201,636	253,886	343,741	349,257

IMPORTS OF FLUORSPAR

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. ..	67,254	84,146	103,094	93,198	84,537	85,894
India (b) .. ..	5,545	8,221	4,068	12,240	9,507	9,560
Australia (a) .. ..	15,529	17,983	20,797	20,660	19,864	20,183
<b>OTHER COUNTRIES</b>						
Austria .. ..	13,591	13,337	15,182	14,320	13,450	13,666
Belgium-Luxemburg ..	—	—	—	—	—	—
E.U. .. ..	6,487	9,775	13,032	13,872	16,993	17,266
Denmark .. ..	1,668	1,678	3,570	1,701	3,720	3,780
Finland .. ..	4,840	4,287	6,182	6,485	7,344	7,462
France .. ..	3,060	3,421	359	6,623	12,368	12,567
Germany (Federal) ..	118,441	116,572	151,062	160,448	264,318	268,560
Italy .. ..	14,612	32,346	21,273	28,802	57,966	58,896
Netherlands .. ..	15,558	19,556	22,250	27,554	34,997	35,559
Norway .. ..	2,738	2,383	2,774	2,259	24,573	24,967
Poland .. ..	39,579	29,961	32,822	27,083	22,765	23,130
Sweden .. ..	20,858	10,498	13,900	17,182	15,871	16,126
U.S.S.R. .. ..	93,400	83,067	100,389	131,980	142,415	144,700
Yugoslavia .. ..	r 4,174	r 3,387	r 4,015	5,500	6,706	6,813
Mexico .. ..	70	2	13	10	<i>n.a.</i>	<i>n.a.</i>
United States .. ..	784,416	814,170	937,596	1,026,380	975,284	990,934
Brazil .. ..	—	15	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chile .. ..	1,000	2,184	487	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. ..	147	26	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. ..	3,744	1,968	198	56	<i>n.a.</i>	<i>n.a.</i>
Israel .. ..	318	516	655	169	<i>n.a.</i>	<i>n.a.</i>
Japan .. ..	220,710	353,207	486,247	513,625	512,575	520,800
Turkey .. ..	<i>n.a.</i>	3,469	1,180	2,512	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended June 30 of that stated. (b) Years ended March 31 following that stated.



## FULLER'S EARTH

(see also Bentonite)

### PRODUCTION OF FULLER'S EARTH

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Australia .. .. .	—	75	75	30	—	—
<b>OTHER COUNTRIES</b>						
Algeria .. .. .	(b) 60,000	(b) 60,000	(b) 60,000	(b) 60,000	(b) 60,000	(b) 60,000
Morocco .. .. .	30,004	26,138	29,492	13,353	11,185	11,364
South Africa .. .. .	—	1,131	212	1,112	1,529	1,554
United States (a) .. .. .	678,248	717,785	822,812	800,000	850,000	860,000

Fuller's earth is also produced in the United Kingdom, France, Senegal, Iran, Japan and Turkey.

(a) Sold or used by producers.

(b) Estimated.

### EXPORTS OF FULLER'S EARTH\*

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
Morocco .. .. .	27,679	21,291	15,064	1,800	8,689	8,828
United States .. .. .	20,784	27,096	37,652	33,429	33,143	33,675
Iran (a) .. .. .	6	6	20	12	12	12

\*Statistics of exports of Fuller's earth are not generally separately recorded in official trade returns.

(a) Years ended March 20 of year following that stated.

### IMPORTS OF FULLER'S EARTH

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Malawi .. .. .	146	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Zambia .. .. .	223	202	156	166	<i>n.a.</i>	<i>n.a.</i>
Canada .. .. .	6,805	8,106	8,080	8,703	10,208	10,372
Ceylon .. .. .	433	150	243	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
India (a) .. .. .	47	63	46	97	18	18
<b>OTHER COUNTRIES</b>						
Chile .. .. .	258	17	103	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	<i>n.a.</i>	896	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	797	987	765	163	<i>n.a.</i>	<i>n.a.</i>
Burma .. .. .	495	218	116	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 31 following that stated.

**GOLD**  
**PRODUCTION OF GOLD**  
(Metal content)

Producing Country	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Ghana .. .. .	684,395	762,609	727,121	707,354	715,032	22,240
Kenya .. .. .	11,898	33,366	31,974	17,903	—	—
Nigeria .. .. .	40	39	248	298	122	4
Rhodesia .. .. .	(d) 550,000	(c) 515,000	(d) 500,000	(c) 515,000	(c) 501,000	(c) 15,600
Tanzania .. .. .	(b) 55,473	18,486	17,473	16,015	7,859	244
Zambia .. .. .	5,100	(c) 5,000	(c) 5,000	(c) 5,000	(c) 5,500	(c) 170
Canada .. .. .	3,318,006	2,993,366	2,743,021	2,502,169	2,357,620	73,330
Guyana .. .. .	2,795	2,378	4,088	2,102	n.a.	n.a.
India .. .. .	120,200	101,600	115,400	98,445	104,200	3,241
Malaysia (West) (c)	2,800	1,300	1,453	3,153	3,912	122
Sarawak .. .. .	2,611	2,521	2,718	2,270	1,265	39
Australia .. .. .	916,985	805,336	781,782	710,918	620,305	19,294
Fiji .. .. .	112,567	110,033	106,854	91,572	103,785	3,228
New Guinea and Papua	28,106	27,671	26,144	25,857	23,807	740
New Zealand .. .. .	8,964	10,703	8,626	10,717	10,257	319
<b>TOTAL .. .. .</b>	<b>5,820,000</b>	<b>5,388,000</b>	<b>5,082,000</b>	<b>4,712,000</b>	<b>4,457,000</b>	<b>139,000</b>
<b>OTHER COUNTRIES</b>						
Finland .. .. .	15,465	20,281	21,380	18,872	20,319	633
France .. .. .	60,164	62,730	58,450	54,946	62,726	1,951
Germany (Federal) .. .. .	(d) 1,800	916	1,000	1,000	1,000	30
Portugal .. .. .	18,800	18,400	17,400	16,000	11,992	373
Spain .. .. .	450	932	—	—	—	—
Sweden .. .. .	79,570	60,668	49,737	42,310	40,000	1,240
Yugoslavia .. .. .	84,942	68,063	70,314	80,074	97,384	3,029
Angola .. .. .	—	—	9	12	—	—
Cameroun .. .. .	961	993	514	193	235	7
Central African Republic	40	—	—	—	n.a.	n.a.
Congo (Brazza) .. .. .	3,730	5,048	4,790	3,922	2,636	82
Congo (Kinshasa) .. .. .	160,000	153,000	169,885	167,055	177,118	5,509
Ethiopia .. .. .	21,256	23,612	r 38,828	42,400	n.a.	n.a.
Gabon .. .. .	31,500	29,386	16,525	14,243	16,108	501
Liberia (d) (a) .. .. .	4,351	5,111	3,216	1,136	670	21
Malagasy Republic .. .. .	809	755	476	646	514	16
Mozambique .. .. .	11	22	6	21	n.a.	n.a.
South Africa .. .. .	30,879,700	30,532,880	31,094,466	31,281,274	32,164,147	1,000,417
South-West Africa .. .. .	12	—	10	—	n.a.	n.a.
Sudan .. .. .	(c) 200	200	29	n.a.	n.a.	n.a.

- (a) Years ended August 31 of year stated.  
 (b) Exports.  
 (c) Estimated.  
 (d) United States Bureau of Mines' estimate.

PRODUCTION OF GOLD (cont.)

Producing Country	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Upper Volta .. ..	14,470	—	—	—	—	—
Costa Rica (c) .. ..	600	500	500	500	n.a.	n.a.
Haiti .. ..	5,071	(c) 6,000	3,100	(c) 3,000	n.a.	n.a.
Honduras (b) .. ..	3,516	2,860	6,426	6,200	4,600	143
Mexico .. ..	213,600	165,300	176,958	180,623	173,613	5,400
Nicaragua .. ..	169,154	194,683	184,034	148,694	109,377	3,402
Salvador .. ..	(b) 236	673	n.a.	n.a.	n.a.	n.a.
United States .. ..	1,803,420	1,584,187	1,478,292	1,733,176	1,788,415	55,626
Argentina .. ..	160	—	14	11	n.a.	n.a.
Bolivia (d) .. ..	16,238	1,149	745	44,078	4,989	155
Brazil (a) .. ..	168,000	173,000	184,855	185,507	165,000	5,132
Chile .. ..	67,770	58,130	57,743	59,093	50,718	1,578
Colombia .. ..	275,267	257,588	238,658	217,966	201,519	6,268
Ecuador .. ..	10,901	6,738	8,659	7,287	8,520	265
French Guiana .. ..	630	7,588	5,112	3,569	2,347	73
Peru .. ..	94,978	95,559	82,502	87,759	90,000	2,799
Surinam .. ..	5,159	(c) 4,500	(c) 4,690	2,379	1,161	36
Venezuela .. ..	16,895	18,917	20,600	19,385	21,900	681
Burma .. ..	(c) 200	(c) 200	(c) 200	(c) 200	n.a.	n.a.
Cambodia .. ..	(c) 4,000	(c) 4,000	(c) 4,000	(c) 4,000	n.a.	n.a.
Formosa .. ..	41,800	32,500	20,994	21,400	22,500	700
Indonesia .. ..	4,128	7,748	5,967	7,597	7,620	237
Japan .. ..	254,400	253,000	238,500	253,000	255,761	7,955
Korea (South) .. ..	60,540	63,337	54,913	46,458	43,917	1,366
Philippine Republic .. ..	453,546	498,114	527,355	571,145	602,715	18,747
<b>TOTAL*</b> .. ..	<b>35,100,000</b>	<b>34,700,000</b>	<b>34,900,000</b>	<b>35,300,000</b>	<b>36,200,000</b>	<b>1,126,000</b>
<b>WORLD'S TOTAL*</b> (excl. U.S.S.R.) .. ..	<b>40,900,000</b>	<b>40,100,000</b>	<b>40,000,000</b>	<b>40,000,000</b>	<b>41,000,000</b>	<b>1,270,000</b>

\*In view of the wide divergences in estimates of the production of gold in the U.S.S.R. (ranging from 2-18 million ounces) figures for that country have been omitted. The United States Bureau of Mines' revised estimate of annual production in recent years is 4-6 million ounces.

(a) Mined gold only.

(c) United States Bureau of Mines' estimate.

(b) Imports into the United States.

(d) Exports.

**TOTAL EXPORTS OF GOLD\***

(Metal content)

Exporting Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bullion, refined .. .. .	36,952,000	60,360,000	54,772,621	10,676,259	18,173,151	565,248
Coin .. .. .	1,324,117	920,170	399,815	596,356	877,153	27,282
Ghana—						
Bullion .. .. .	690,036	767,340	735,042	713,042	697,371	21,690
Kenya—						
Bullion .. .. .	12,019	26,942	24,741	16,044	5,916	184
Tanzania—						
Bullion, refined .. .. .	55,473	18,486	17,474	16,017	7,928	247
Canada—						
Bullion—						
Unrefined .. .. .	86,352	103,774	136,917	141,339	117,570	3,657
Refined .. .. .	1,171,898	2,296,197	16,186,394	4,534,660	5,756,970	179,062
Coin* .. .. .	249,700	177,500	56,300	26,900	10,346	322
Hong Kong—						
Bullion .. .. .	1,431,726	1,732,887	710,838	727,791	883,357	27,475
Australia (a)—						
Ores, etc. .. .. .	131,349	151,909	100,222	102,502	126,960	3,949
Bullion, refined .. .. .	768,702	515,134	485,480	695,176	975,578	30,344
do. unrefined .. .. .	1	61,280	15,831	—	—	—
Fiji—						
Bullion .. .. .	109,732	112,698	106,784	95,346	n.a.	n.a.
New Guinea (a)—						
Bullion* .. .. .	30,038	28,473	23,422	22,472	n.a.	n.a.
New Zealand* (a)—						
Beaten, rolled or drawn	5,000	3,000	2,000	n.a.	n.a.	n.a.
Papua (a)—						
Bullion* .. .. .	56	30	47	6	n.a.	n.a.
Solomon Islands—						
Bullion .. .. .	349	672	654	413	290	9
Irish Republic*—						
Bullion .. .. .	3,900	1,800	1,529	3,420	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bullion and scrap .. .. .	79,000*	119,000*	374,950	141,703	120,067	3,735
Coin .. .. .	106,000	64,301	128,603	212,195	93,237	2,900
France—						
Beaten, rolled or drawn	47,000*	53,000*	98,000	62,000	128,000	3,978
Germany (Federal)—						
Bullion .. .. .	300,000	358,000	802,000	889,500	503,500	15,661
Netherlands—						
Bullion, etc. .. .. .	28,000*	28,000	38 000	35,000	25,000	779
Coin .. .. .	29,000	—	1,000	1,000	14,000	440
Sweden*—						
Bullion .. .. .	57,000	16,000	46,000	54,000	58,500	1,821
Switzerland—						
Bullion .. .. .	659,000*	681,000	1,598,000	724,549	649,509	20,202
Equatorial African Community—						
Bullion .. .. .	29,600	23,000	12,400	7,800	6,700	207

\*Some countries record trade in gold by value or by the gross weight of bullion only. In such cases the weight has been obtained by dividing the value by the official annual average price of gold per fine ounce but in no case has any account been taken of the premium. Countries or items for which this conversion has been effected are marked with an asterisk.

(a) Years ended June 30 of that stated.

EXPORTS OF GOLD (cont.)

Exporting Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Mozambique—						
Bullion .. .. .	294,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Bullion .. .. .	24,534,000	32,294,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Upper Volta—						
Bullion .. .. .	18,230	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Honduras—						
Ore and base bullion ..	3,860	4,906	6,005	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Bullion .. .. .	7,000	3,000	2,389	3,176	2,678	83
Nicaragua—						
Bullion .. .. .	147,829	145,804	137,637	107,672	109,377	3,402
United States—						
Ore and base bullion ..	49,117	112,578	181,385	58,867	106,117	3,301
Refined bullion .. .	13,017,549	28,607,404	23,781,006	279,434	968,108	30,112
Bolivia—						
Ore .. .. .	555	1,149	} 745 {	44,078	4,989	155
Bullion .. .. .	15,683	<i>n.a.</i>		<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
French Guiana—						
Bullion .. .. .	<i>n.a.</i>	1,100	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Ores, concentrates, etc.	43,594	} 33,887	32,000	46,000	<i>n.a.</i>	<i>n.a.</i>
Bullion .. .. .	10,044					
Philippine Republic—						
Ore and base bullion (a)	93,872	56,677	61,597	47,110	89,602	2,787
Refined bullion (a) ..	295,718	286,087	426,376	412,158	35,854	1,115

(a) Imports into the United States.

**TOTAL IMPORTS OF GOLD\***

*(Metal content)*

Importing Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore, etc.* .. ..	5,000	—	4	—	67	2
Bullion—						
Unrefined .. ..	763,770	819,002	819,275	767,759	1,068,288	33,227
Refined .. ..	25,838,792	33,735,000	44,636,753	12,874,620	29,387,211	914,045
Coin .. ..	72,060	118,382	90,062	52,185	77,783	2,419
Malta*—						
Bullion and coin ..	13,200	14,500	11,000	9,400	15,000	467
Ghana—						
Bullion .. ..	<i>n.a.</i>	610	2,500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kenya—						
Bullion .. ..	7,034	6,748	7,318	7,030	5,931	184
Tanzania—						
Bullion .. ..	3,676	556	62	152	52	2
Uganda—						
Bullion .. ..	3,810	2,745	1,173	2,865	62	2
Canada—						
Bullion .. ..	155,716	473,808	332,628	90,482	124,685	3,878
Coin* .. ..	29,000	133,000	221,000	78,000	74,243	2,309
Jamaica*—						
Bullion and coin ..	—	5,998	—	—	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Bullion and coin ..	7,020	8,578	6,957	576	<i>n.a.</i>	<i>n.a.</i>
Brunei—						
Bullion .. ..	59,217	61,116	28,390	29,810	<i>n.a.</i>	<i>n.a.</i>
Ceylon*—						
Bullion .. ..	—	30	55	20	<i>n.a.</i>	<i>n.a.</i>
Partly worked .. ..	12,700	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Cyprus—						
Bullion .. ..	15,706	16,084	(c) 15,738	(c) 15,414	(c) 17,520	(c) 545
Hong Kong—						
Bullion .. ..	1,371,774	1,756,121	666,544	761,758	878,397	27,321
Sabah—						
Bullion .. ..	<i>n.a.</i>	12,599	8,365	6,000	4,500	140
Sarawak—						
Bullion (b) .. ..	26,000	18,000	18,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Australia (a)—						
Bullion .. ..	197,748	151,792	145,728	113,369	196,244	6,104
Fiji*—						
Bullion (c) .. ..	300	300	300	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
New Zealand (a)—						
Bullion .. ..	1,838	588	30	102	<i>n.a.</i>	<i>n.a.</i>
Beaten, rolled or drawn	10,744	13,088	7,395	9,626	<i>n.a.</i>	<i>n.a.</i>
Irish Republic*—						
Bullion .. ..	20,400	23,500	30,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
Bullion .. ..	1,161,000	1,507,000	994,000	660,183	912,759	28,390
Belgium-Luxemburg						
E.U.—						
Bullion, scrap, etc. ..	656,000*	1,275,000	1,097,000	1,480,000	578,680	17,999
Coin .. ..	579,000	479,000	212,000	212,000	45,000	1,400
Finland—						
Bullion and scrap ..	<i>n.a.</i>	77,700	22,042	38,324	37,092	1,154

\*See note on page 130.

(a) Years ended June 30 of that stated.

(b) Including coin and partly worked.

(c) Including partly worked.

## IMPORTS OF GOLD (cont.)

Importing Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
France—						
Beaten, rolled or drawn	15,000	18,000	68,400	144,335	20,140	626
Germany (Federal)—						
Bullion .. .. .	3,686,000*	5,256,000	4,195,000	4,018,000	3,459,600	107,605
Coin .. .. .	345,000	345,000	301,000	358,000	450,300	14,007
Italy—						
Bullion and scrap ..	1,071,000*	1,620,000	1,038,000	1,473,000	5,173,200	160,906
Netherlands—						
Bullion .. .. .	38,000	35,000	53,000	42,000	39,200	1,220
Coin .. .. .	1,000	39	200	600	1,200	39
Norway—						
Bullion .. .. .	26,200	40,000	38,000	33,000	44,300	1,379
Sheets and rolled ..	5,500*	6,500	10,000	17,000	18,200	567
Sweden—						
Bullion* .. .. .	202,000	161,000	95,000	85,000	46,500	1,447
Switzerland—						
Bullion .. .. .	247,000	680,000	135,000	97,000	68,000	2,112
Mozambique—						
Bullion .. .. .	266,000	n.a.	—	n.a.	n.a.	n.a.
United States—						
Ore and base bullion ..	333,119	219,382	213,662	236,738	286,988	8,926
Refined bullion ..	866,926	710,487	5,730,853	5,624,649	6,365,380	197,985
Brazil—						
Bullion .. .. .	250*	17,000*	80,000*	40,000*	128,000*	3,981
Formosa—						
Bullion .. .. .	215,000	315,119	n.a.	n.a.	n.a.	n.a.
Lebanon—						
Bullion and scrap ..	3,284,000	2,939,000	2,297,000	2,106,000	3,379,000	105,099
Syria—						
Bullion and scrap (a) ..	6,300	3,600	264,000	26,600	20,800	646

\*See note on page 130.

(a) Gross weight.

**GRAPHITE**  
**PRODUCTION OF GRAPHITE**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Ceylon (c) .. ..	9,867	10,203	10,631	11,238	9,631	9,786
Hong Kong—						
72%-80% fixed carbon	—	3	297	135	—	—
50% fixed carbon	—	16	201	87	—	—
<b>OTHER COUNTRIES</b>						
Austria (a) .. ..	78,283	31,043	25,066	25,417	27,295	27,733
Germany (Federal) .. ..	12,935	11,666	12,640	12,829	16,147	16,406
Italy .. ..	1,053	1,847	1,107	1,691	2,055	2,088
Norway .. ..	7,818	7,439	8,140	9,173	9,400	10,000
U.S.S.R. (b) .. ..	64,000	64,000	69,000	69,000	74,000	75,000
Malagasy Republic—						
Flake .. ..	7,873	16,146	16,170	16,844	19,556	19,870
Powder .. ..	8,234					
South Africa .. ..	1,037	629	711	451	688	699
South-West Africa .. ..	357	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico .. ..	38,140	40,047	51,862	42,243	54,769	55,647
Argentina .. ..	155	211	366	239	(b) 300	(b) 300
Brazil .. ..	9,018	9,080	2,224	11,597	<i>n.a.</i>	<i>n.a.</i>
China (b) .. ..	40,000	30,000	30,000	30,000	30,000	30,000
Japan—						
Flake .. ..	2,168	1,688	1,465	1,699	1,442	1,465
Amorphous .. ..						
Korea (South)—						
Flake .. ..	2,126	2,388	633	584	782	795
Amorphous .. ..	483,245	358,251	353,330	305,104	332,000	337,000
Korea (North) (b) .. ..	74,000	74,000	74,000	74,000	74,000	75,000
<b>TOTAL*</b> .. ..	<b>855,000</b>	<b>674,000</b>	<b>679,000</b>	<b>620,000</b>	<b>662,000</b>	<b>672,000</b>

\*An allowance has been made for graphite produced in India, Czechoslovakia and the United States.

(a) Crude.

(b) United States Bureau of Mines' estimate.

(c) Exports.



EXPORTS OF GRAPHITE

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crucibles .. ..	3,391	3,650	3,612	3,844	3,058	3,107
Ceylon .. ..	9,867	10,203	10,631	11,238	9,631	9,786
Hong Kong .. ..	305	30	100	300	—	—
India (b) .. ..	11	33	164	124	22	22
Australia (a) .. ..	21	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Austria .. ..	16,610	17,923	24,329	24,069	25,412	25,820
Belgium-Luxemburg						
E.U. .. ..	28	5	32	11	30	31
Denmark .. ..	7	2	23	1	5	5
France .. ..	1,760	1,667	1,178	1,513	1,731	1,759
Germany (Federal) .. ..	7,065	7,554	7,907	7,461	9,174	9,321
Italy .. ..	1,398	1,467	1,543	1,478	1,786	1,815
Netherlands .. ..	59	68	189	151	162	165
Norway .. ..	7,638	7,274	8,558	8,491	10,452	10,620
Sweden .. ..	133	155	47	—	110	112
U.S.S.R. .. ..	8,200	9,349	10,039	11,900	17,300	17,600
Malagasy Republic .. ..	16,549	15,943	15,634	18,222	19,986	20,307
South Africa .. ..	24	16	19	22	36	37
Mexico .. ..	36,586	38,110	49,819	38,688	44,974	45,696
United States .. ..	2,822	3,187	3,722	5,049	5,163	5,246
Formosa .. ..	185	5	36	10	—	—
Japan .. ..	666	640	n.a.	945	746	758
Korea (South) .. ..	55,183	50,422	47,278	42,345	44,927	45,648

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF GRAPHITE

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Natural .. .. .	10,011	8,280	10,105	10,162	11,775	11,964
Artificial .. ..	737	1,831	590	1,178	2,163	2,197
Canada—						
Crucibles .. ..	(£92,393)	(£78,315)	(£118,000)	(£141,000)	(£97,000)	(£97,000)
Hong Kong .. ..	31	5	47	132	164	167
India (a)—						
Graphite .. .. .	908	1,409	940	946	1,210	1,230
Crucibles .. ..	439	736	568	334	336	341
Malaysia West ..	145	144	174	103	98	100
Australia (b) ..	1,211	1,449	1,274	1,741	1,480	1,504
New Zealand (b) ..	89	207	129	99	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Graphite .. .. .	231	293	683	582	1,747	1,775
Crucibles, etc. ..	259	412	307	517	591	601
Belgium-Luxemburg						
E.U. .. .. .	617	537	717	860	708	719
Denmark .. .. .	403	283	296	395	229	233
Finland .. .. .	386	341	326	323	618	628
France .. .. .	4,803	4,805	4,700	5,541	6,682	6,789
Germany (Federal) ..	14,284	16,706	20,606	20,970	26,556	26,982
Germany (East) .. .	4,379	5,460	5,670	5,082	4,849	4,927
Greece .. .. .	290	255	187	352	252	256
Italy .. .. .	9,385	13,567	13,361	13,772	13,794	14,015
Netherlands .. ..	242	182	235	443	306	311
Norway .. .. .	452	380	342	384	389	395
Poland .. .. .	12,266	9,854	11,386	10,492	11,436	11,620
Portugal .. .. .	142	156	184	142	160	163
Spain .. .. .	926	761	837	871	1,243	1,263
Sweden .. .. .	1,438	966	1,090	1,210	1,251	1,271
Switzerland .. ..	616	463	500	347	393	399
Yugoslavia .. ..	919	1,123	878	984	1,760	1,788
Morocco .. .. .	18	8	23	30	16	17
Mozambique .. ..	4	1	3	3	5	5
South Africa .. ..	422	465	484	346	321	326
Sudan .. .. .	9	—	16	2	—	—
Tunisia .. .. .	10	2	—	—	2	2
Mexico—						
Graphite .. .. .	131	204	184	159	212	215
Crucibles .. ..	155	n.a.	240	404	570	579

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

## IMPORTS OF GRAPHITE (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
United States (a) ..	50,568	43,144	60,550	52,176	59,231	60,181
Argentina .. ..	340	177	366	341	84	85
Brazil—						
Graphite .. ..	124	165	154	111	138	140
Crucibles .. ..	587	260	505	760	307	312
Chile .. ..	100	312	67	n.a.	n.a.	n.a.
Colombia (b) .. ..	107	45	45	n.a.	n.a.	n.a.
Peru (b) .. ..	72	251	61	n.a.	n.a.	n.a.
Uruguay .. ..	3	7	8	10	n.a.	n.a.
Venezuela .. ..	524	266	186	150	n.a.	n.a.
Burma .. ..	25	86	56	n.a.	n.a.	n.a.
Lebanon (b) .. ..	10	34	92	28	68	69
Israel .. ..	45	43	n.a.	41	47	48
Formosa .. ..	2,750	1,970	4,577	4,362	3,751	3,811
Japan .. ..	51,909	54,325	61,939	56,694	75,607	76,820
Philippine Republic .. ..	n.a.	56	160	n.a.	n.a.	n.a.
Thailand .. ..	431	842	1,000	990	762	774
Turkey—						
Graphite .. ..	143	232	243	323	n.a.	n.a.
Crucibles, etc. .. ..	152	206	372	228	n.a.	n.a.

(a) In addition the following amounts of artificial graphite were imported

Year	Long tons	Tonnes
1966 .. ..	99	
1967 .. ..	279	
1968 .. ..	100	
1969 .. ..	17	
1970 .. ..	97	99

(b) Including artificial graphite.

**GYPSUM**  
**PRODUCTION OF GYPSUM**

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Gypsum .. .. .	2,534,000	2,671,000	2,560,000	2,809,000	2,802,000	2,847,000
Anhydrite .. .. .	1,724,000	1,850,000	2,154,000	1,714,000	1,406,000	1,428,000
Kenya .. .. .	33,210	39,807	41,438	60,868	59,128	60,077
Tanzania .. .. .	3,190	15,235	4,391	10,858	20,391	20,718
Zambia .. .. .	1,058	1,478	1,058	(e) 1,200	—	—
Canada (a) (f) .. .. .	5,335,861	4,620,879	5,291,910	5,690,758	5,751,787	5,844,086
Jamaica .. .. .	189,546	183,857	208,000	251,000	278,000	282,000
Trinidad .. .. .	1,981	3,589	4,251	4,000	n.a.	n.a.
Cyprus .. .. .	52,024	49,800	20,000	16,030	28,380	28,835
India .. .. .	1,273,000	1,011,764	1,298,000	1,367,570	868,794	882,735
Pakistan (g) .. .. .	111,210	101,000	45,321	134,000	165,000	168,000
Australia .. .. .	801,552	914,084	843,744	897,705	824,393	837,624
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Gypsum .. .. .	616,064	579,157	554,278	521,686	461,000	469,007
Anhydrite .. .. .	148,653	147,232	132,908	143,676	156,317	158,825
Bulgaria .. .. .	173,000	164,000	206,000	(e) 197,000	167,000	170,000
Czechoslovakia .. .. .	350,000	365,000	401,000	433,000	479,000	487,000
France (a) .. .. .	5,188,513	5,108,097	5,230,600	5,865,000	5,992,000	6,088,000
<b>Germany (Federal)—</b>						
Gypsum .. .. .	1,295,513	1,221,753	1,454,535	1,737,090	1,946,504	1,977,740
Anhydrite .. .. .	142,710	99,203	42,996	60,303	82,054	83,362
Germany (East) (d) .. .. .	255,000	268,000	264,000	278,000	284,000	289,000
Greece .. .. .	200,516	215,541	226,657	231,300	295,000	300,000
Italy (c) .. .. .	3,315,561	(b)3,250,000	(b)3,250,000	(b)3,250,000	3,214,000	3,266,000
Luxemburg .. .. .	6,000	9,307	6,264	9,044	4,982	5,062
Poland (e) .. .. .	750,000	743,000	778,000	797,000	n.a.	n.a.
Portugal .. .. .	111,117	102,586	104,617	93,632	113,228	115,045
<b>Spain—</b>						
Gypsum (b) .. .. .	} 3,816,000	3,543,000	3,838,000	3,937,000	n.a.	n.a.
Anhydrite (b) .. .. .						
Switzerland (e) .. .. .	100,000	n.a.	n.a.	n.a.	n.a.	n.a.
U.S.S.R. .. .. .	(e)4,424,000	(e)4,617,000	4,773,000	(e)4,800,000	n.a.	n.a.
Yugoslavia .. .. .	166,000	168,000	194,000	228,168	246,661	250,619
Angola .. .. .	(e) 10,000	11,798	12,782	16,138	n.a.	n.a.
Egypt .. .. .	450,850	536,265	561,160	462,400	n.a.	n.a.
Libya .. .. .	3,000	3,000	3,000	n.a.	n.a.	n.a.
Niger .. .. .	(e) 2,000	1,702	1,926	n.a.	n.a.	n.a.
South Africa .. .. .	291,857	302,734	311,058	353,744	403,624	410,101
Sudan .. .. .	2,000	4,000	10,000	n.a.	n.a.	n.a.
Dominican Republic .. .. .	89,000	117,000	98,000	(e) 98,000	n.a.	n.a.
Guatemala .. .. .	12,000	11,000	7,578	7,602	n.a.	n.a.
Mexico .. .. .	1,133,000	961,000	1,216,000	1,200,000	n.a.	n.a.
Nicaragua .. .. .	9,000	10,000	14,000	30,000	n.a.	n.a.
United States .. .. .	8,613,000	8,387,000	8,945,000	8,822,000	8,448,000	8,584,000
Argentina (a) .. .. .	283,650	260,473	r 427,220	526,852	n.a.	n.a.
Brazil .. .. .	78,956	70,322	213,374	281,133	n.a.	n.a.
Chile .. .. .	118,000	130,653	r 101,400	n.a.	125,257	127,267
Colombia .. .. .	113,000	116,000	121,000	151,250	189,062	192,095
Paraguay .. .. .	3,000	2,000	3,400	3,445	n.a.	n.a.
Peru .. .. .	36,534	40,771	35,120	44,312	n.a.	n.a.
Venezuela .. .. .	(e) 85,000	(e) 84,000	(e) 100,000	81,000	n.a.	n.a.

(a) Including anhydrite.

(b) Estimated.

(c) Including alabaster.

(d) Crude estimated on production of calcined

(e) United States Bureau of Mines' estimate.

(f) Producers' shipments.

(g) West Pakistan.

PRODUCTION OF GYPSUM (cont.)

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Burma .. .. .	(a) 1,000	1,970	3,543	3,444	n.a.	n.a.
Formosa .. .. .	8,280	16,197	5,547	5,042	11,146	11,325
Israel .. .. .	100,000	90,000	70,000	71,000	69,000	70,000
Japan .. .. .	588,000	575,000	553,671	551,117	572,011	581,190
Philippine Republic .. .. .	15,087	19,963	20,325	36,400	n.a.	n.a.
Saudi Arabia .. .. .	25,697	30,108	39,665	(b) 34,400	n.a.	n.a.
Syria .. .. .	(b) 15,000	(b) 15,000	(b) 15,000	(b) 15,000	n.a.	n.a.
Thailand .. .. .	39,003	60,722	126,070	90,580	141,972	144,250
Turkey (a) .. .. .	250,000	275,000	290,000	295,000	n.a.	n.a.
<b>TOTAL*</b> .. .. .	<b>44,000,000</b>	<b>44,000,000</b>	<b>47,000,000</b>	<b>49,000,000</b>	<b>49,000,000</b>	<b>50,000,000</b>

\*Excluding gypsum known to have been produced in Roumania, Cuba, China and many other countries. Also excluded is production of "Juss" (an impure sandy gypsum) in Iraq.

(a) Estimated.

(b) United States Bureau of Mines' estimate.

EXPORTS OF GYPSUM

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Calcined .. ..	11,589	8,653	9,402	9,880	12,889	13,096
Tanzania .. ..	1,526	—	100	400	2,313	2,350
Canada—						
Crude .. .. .	4,171,891	3,478,691	3,985,362	4,349,271	4,333,308	4,402,845
Jamaica .. .. .	197,769	188,696	249,326	337,225	n.a.	n.a.
Cyprus—						
Crude .. .. .	55,650	12,954	10,132	5,577	4,351	4,421
Calcined .. ..	1,196	293	213	194	157	160
India (b) .. ..	—	—	935	5	—	—
Malaysia (West)—						
Crude and calcined ..	20	34	29	61	37	38
Singapore—						
Crude and calcined ..	1,157	593	327	1,392	306	311
Australia (a)—						
Crude .. .. .	184,450	238,873	211,185	263,658	200,895	204,119
Calcined .. .. .	617	516	736	905	1,573	1,598
Irish Republic—						
Crude .. .. .	93,509	96,310	107,478	98,118	106,558	108,268
<b>OTHER COUNTRIES</b>						
Austria—						
Crude .. .. .	77,665	92,600	103,550	112,936	138,111	140,327
Calcined .. .. .	804	818	1,365	1,690	2,536	2,577
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	299	44	182	1,594	380	386
Calcined .. ..	13,789	10,481	10,459	10,613	8,937	9,081
Denmark—						
Crude and calcined ..	29	125	55	128	85	86
France—						
Crude .. .. .	665,445	689,472	734,991	803,502	1,081,154	1,098,503
Calcined .. .. .	129,210	134,715	114,885	104,412	108,544	110,286
Germany (Federal)—						
Crude and calcined ..	354,734	291,752	296,269	309,038	254,901	258,992
Germany (East)—						
Calcined .. .. .	32,571	58,266	71,809	66,878	60,429	61,399
Italy—						
Crude .. .. .	17,114	16,152	28,961	13,355	15,766	16,019
Calcined .. .. .				17,049	17,883	18,170
Netherlands—						
Crude .. .. .	22	21	38	323	1	1
Calcined .. .. .	80	208	159	858	884	898
Poland .. .. .	447,000	441,130	532,802	517,951	577,881	587,154
Portugal—						
Crude .. .. .	216	122	200	72	208	212
Calcined .. .. .	165	85	92	162	26	26
Spain—						
Crude and calcined ..	3,756	4,762	4,182	15,202	4,068	4,133
Switzerland—						
Ground and calcined ..	109	1,334	2,183	2,354	2,332	2,370
Yugoslavia—						
Crude .. .. .	157	—	47	1,789	10,743	10,915
Ground and calcined ..				21	37	38
Angola—						
Crude .. .. .	5,613	9,486	7,271	6,928	5,259	5,343
Egypt—						
Crude and ground ..	52,199	38,514	819	44	3	3
Calcined .. .. .						

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## EXPORTS OF GYPSUM (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Morocco—						
Crude .. ..	48,772	49,887	66,785	76,102	102,263	103,904
Calcined .. ..	1,240	962	805	1,039	742	754
South Africa .. ..	21,293	20,373	25,799	26,388	33,467	34,004
Mexico—						
Crude .. ..	964,142	860,142	1,142,898	1,021,318	1,039,525	1,056,206
Calcined .. ..	22	69	3	21	10	10
United States—						
Crude .. ..	18,488	14,768	16,490	13,203	8,710	8,850
Calcined .. ..	15,557	20,346	18,943	22,905	27,358	27,797
Argentina .. ..	17,945	13,097	14,799	9,637	12,047	12,240
Bolivia .. ..	1,929	1,920	n.a.	n.a.	n.a.	n.a.
Venezuela .. ..	2,166	6,693	9,616	13,754	n.a.	n.a.
Iran (a)—						
Calcined .. ..	2,551	2,956	1,912	830	1,822	1,851
Japan—						
Crude .. ..	6,438	6,726	5,664	7,305	5,011	5,091
Calcined .. ..	7,266	3,949	7,908	9,248	22,964	23,333
Syria .. ..	25,920	16,633	23,893	32,249	40,456	41,105

(a) Years ended March 20 following that stated.

IMPORTS OF GYPSUM

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude and calcined ..	147,010	143,378	188,255	165,103	142,105	144,356
Ghana .. .. .	2,520	5,483	7,697	19,104	11,868	12,058
Malawi .. .. .	904	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Zambia .. .. .	16,044	2,870	21,345	18,797	<i>n.a.</i>	<i>n.a.</i>
Bermuda—						
Calcined .. .. .	325	267	269	240	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Crude and ground ..	<i>r</i> 76,708	<i>r</i> 61,707	<i>r</i> 61,662	73,035	34,714	35,271
Calcined .. .. .	<i>r</i> 7,265	<i>r</i> 8,812	<i>r</i> 7,195	7,908	7,855	7,981
Hong Kong .. .. .	17,766	4,329	22,263	18,326	4,795	4,872
Malaysia (West)—						
Crude and calcined ..	25,671	29,928	35,467	30,149	40,273	40,919
Singapore—						
Crude and calcined ..	17,895	11,243	23,754	24,420	28,742	29,204
New Zealand (a)—						
Crude .. .. .	108,186	109,641	86,570	94,154	101,719	103,351
Calcined .. .. .	1,650	1,279	1,045	1	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
Crude .. .. .	11,620	16,066	17,433	13,702	937	952
Calcined .. .. .	7,546	11,008	12,695	8,223	12,109	12,303
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	388,658	378,147	392,263	393,719	422,022	428,794
Calcined .. .. .	53,357	54,070	46,923	57,758	58,843	59,787
Denmark—						
Crude .. .. .	89,038	100,299	108,513	167,030	233,834	237,586
Calcined .. .. .	5,069	6,667	4,890	4,739	4,753	4,829
Finland—						
Crude .. .. .	69,425	73,251	77,244	86,482	86,613	88,003
Calcined .. .. .	38,041	39,676	43,158	40,129	42,664	43,349
France—						
Crude .. .. .	18,234	16,715	16,483	7,853	1,716	1,744
Calcined .. .. .	4,496	21,011	4,155	2,788	2,351	2,389
Germany (Federal)—						
Crude and calcined ..	98,229	119,380	122,044	119,883	147,841	150,214
Greece—						
Crude .. .. .	72	46	92	53	189	192
Calcined .. .. .	333	700	576	748	809	822
Iceland .. .. .	2,970	4,861	6,830	6,191	2,826	2,871
Italy—						
Crude .. .. .	1,049	1,550	908	87	125	127
Calcined .. .. .		45	444	1,683	1,578	1,603
Netherlands—						
Crude .. .. .	231,693	154,450	171,925	161,041	172,598	175,368
Calcined .. .. .	62,909	70,910	73,830	88,419	92,822	94,312
Norway—						
Crude .. .. .	72,172	91,026	132,665	134,614	184,884	187,851
Calcined .. .. .	4,294	4,271	3,763	3,748	4,283	4,352
Portugal—						
Crude .. .. .	15,379	14,104	16,059	21,100	22,164	22,520
Calcined .. .. .	7	11	8	8	15	15
Sweden—						
Crude .. .. .	333,235	333,207	359,615	368,559	459,139	466,507
Calcined .. .. .	22,927	25,448	21,347	21,212	20,331	20,657
Switzerland—						
Crude .. .. .	50,678	52,877	53,923	61,739	56,780	57,691
Ground and calcined ..	4,541	6,043	8,409	17,032	21,118	21,457

(a) Year ended June 30 of that stated.



## IMPORTS OF GYPSUM (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Angola—						
Crude and calcined ..	215	129	61	66	104	106
Malagasy Republic ..	2,342	<i>n.a.</i>	4,040	3,106	5,016	5,096
Morocco .. ..	11	—	—	—	—	—
Mozambique—						
Crude .. ..	8,319	11,989	8,205	11,064	6,939	7,050
Calcined .. ..	88	65	66	51	612	622
South Africa—						
Crude and calcined ..	4,600	4,701	5,361	6,309	6,332	6,433
Sudan .. ..	672	—	870	53	98	100
Tunisia—						
Calcined .. ..	393	397	—	634	568	577
Costa Rica—						
Crude .. ..	3,171	4,294	6,183	5,148	6,457	6,561
Calcined .. ..	116	128	204	175	160	163
Guatemala .. ..	21	31	21	32	35	36
Honduras—						
Calcined .. ..	28	15	23	31	29	29
Mexico—						
Crude .. ..	41	114	102	169	176	179
Panama Republic ..	6,204	6,410	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Crude .. ..	1,991	7,589	3,062	3,656	<i>n.a.</i>	<i>n.a.</i>
Calcined .. ..	66	57	54	43	73	74
United States—						
Crude .. ..	4,892,000	4,074,100	4,887,500	5,230,300	5,471,071	5,558,866
Ground and calcined ..	1,596	1,600	1,767	1,655	1,861	1,891
Argentina—						
Crude .. ..	1	10	34	39	28	28
Brazil—						
Crude .. ..	2,014	1,225	1,595	3,073	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Crude .. ..	3,779	9,313	12,106	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcined .. ..	709	68	73	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Crude and calcined ..	209	424	500	278	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Crude and ground ..	18,929	19,287	15,478	8,728	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. ..	124	206	211	263	<i>n.a.</i>	<i>n.a.</i>
Formosa .. ..	71,445	61,119	<i>n.a.</i>	92,551	122,481	124,446
Iran (a) .. ..	129	934	372	348	684	695
Israel—						
Calcined .. ..	172	170	136	134	149	151
Japan .. ..	48,308	43,267	56,186	59,722	75,808	77,025
Korea (South) ..	70,327	81,130	98,988	108,484	35,752	36,326
Lebanon .. ..	23,602	20,223	37,180	44,556	47,469	48,231
Philippine Republic—						
Crude .. ..	63,548	57,093	85,859	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcined .. ..						
Thailand—						
Crude .. ..	147	111	48	111	153	155

(a) Years ended March 20 of year following that stated.

**IODINE**  
**PRODUCTION OF IODINE**

Producing Country	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
Chile .. ..	6,439,000	5,377,000	4,382,000	5,410,000	4,900,000	2,200,000
Indonesia.. ..	3,913	4,000	4,000	4,000	<i>n.a.</i>	<i>n.a.</i>
Japan .. ..	3,787,000	4,338,000	7,857,000	8,551,000	10,512,000	4,768,000

Iodine is also produced in the U.S.S.R. and the United States.

**EXPORTS OF IODINE**

Exporting Country and Description	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	76,932	87,376	94,696	64,839	120,808	54,797
<b>OTHER COUNTRIES</b>						
France—						
Resublimed .. ..	13,000	24,000	33,000	55,000	24,000	11,000
Germany (Federal) ..	14,000	17,000	34,000	20,000	56,000	25,500
Chile .. ..	5,380,600	5,476,300	4,470,529	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Crude .. ..	} 5,215,078	4,680,404	6,619,509	7,893,803	10,257,850	4,652,885
Resublimed .. ..						

IMPORTS OF IODINE

Importing Country and Description	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	1,242,474	1,428,663	1,394,904	1,543,929	1,855,446	841,616
Canada—						
Crude .. .. .	213,400	371,900	234,700	333,500	401,400	182,072
India (a) .. .. .	297,370	r 214,556	r 225,101	245,734	549,921	249,440
Australia (b)—						
Crude .. .. .	19,600	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand (b) .. .. .	1,653	1,752	n.a.	n.a.	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Denmark .. .. .	22,000	8,800	n.a.	n.a.	n.a.	n.a.
France—						
Crude .. .. .	1,113,000	798,073	630,522	870,826	1,360,000	617,000
Germany (Federal) .. .. .	915,400	1,026,100	r 1,251,500	1,491,425	1,966,300	891,900
Greece .. .. .	7,562	5,450	4,209	7,648	7,489	3,397
Italy—						
Crude .. .. .	303,100	312,836	278,885	391,541	404,800	183,600
Resublimed .. .. .	10,582	3,527	2,866	9,700	22,500	10,200
Portugal—						
Crude .. .. .	8,818	4,409	4,409	8,818	9,000	4,000
Resublimed .. .. .	5,732	882	11	882	220	100
Spain—						
Crude .. .. .	110,231	50,696	46,599	79,366	75,000	34,000
Resublimed .. .. .	919	64	73	—	42	19
Sweden .. .. .	7,000	7,000	n.a.	n.a.	n.a.	n.a.
Yugoslavia .. .. .	24,978	10,538	8,084	21,497	25,671	11,644
Morocco—						
Resublimed .. .. .	359	752	531	196	276	125
Mexico .. .. .	78,207	97,305	136,686	231,400	126,982	57,598
United States—						
Crude .. .. .	7,133,000	3,459,000	5,882,524	5,704,826	5,905,000	2,678,000
Resublimed .. .. .	2,000	9,000	13,550	10,720	n.a.	n.a.
Argentina—						
Crude .. .. .	52,408	37,055	51,992	69,586	122,745	55,676
Resublimed .. .. .	66	—	5,512	53,351	13,228	6,000
Brazil .. .. .	49,364	41,692	47,631	59,551	90,431	41,018
Colombia .. .. .	5,031	4,274	9,771	n.a.	n.a.	n.a.
Peru—						
Crude .. .. .	1,124	n.a.	n.a.	2,180	n.a.	n.a.
Resublimed .. .. .	2,211	n.a.	2,485	2,028	n.a.	n.a.
Venezuela .. .. .	6,515	7,961	7,032	8,377	n.a.	n.a.
Turkey .. .. .	10,926	10,556	7,268	6,861	n.a.	n.a.

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

# IRON AND STEEL PRODUCTION OF IRON ORE\* (including Manganiferous Iron Ore)

Producing Country	ORE										Long tons			Tonnes			
	Long tons										Tonnes			Tonnes			
	1966	1967	1968	1969	1970	1970	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>																	
United Kingdom (a) ..	13,657,900	12,739,100	13,715,500	12,103,500	11,828,200	12,018,000	3,688,000	3,567,000	3,840,000	3,390,000	3,312,000	3,365,000	1,410,000	1,446,000	1,497,000	1,428,000	1,467,000
Sierra Leone (f) ..	2,182,792	2,224,467	2,495,451	1,996,124	2,405,947	2,444,555	1,410,000	1,446,000	1,497,000	1,428,000	1,467,000	1,467,000	1,410,000	1,446,000	1,497,000	1,428,000	1,467,000
Swaziland ..	1,566,091	1,715,985	2,018,031	2,266,201	2,511,800	2,552,107	987,000	1,032,000	1,271,000	1,271,000	1,444,000	1,444,000	987,000	1,032,000	1,271,000	1,271,000	1,444,000
Canada ..	36,331,003	37,783,750	42,360,090	35,762,745	47,508,742	48,271,258	19,982,000	20,283,000	24,246,000	19,670,000	26,130,000	26,549,000	19,982,000	20,283,000	24,246,000	19,670,000	26,130,000
Hong Kong ..	134,785	141,324	159,041	163,325	167,567	170,256	79,000	79,000	89,000	81,000	84,000	85,000	79,000	79,000	89,000	81,000	84,000
India ..	19,620,000	18,676,000	20,252,100	21,561,002	21,654,512	22,002,000	11,970,000	11,448,000	12,154,000	13,100,000	13,188,000	13,499,000	11,970,000	11,448,000	12,154,000	13,100,000	13,188,000
Goa ..	6,480,000	6,645,000	8,648,200	7,536,200	8,639,764	8,778,406	3,760,000	3,854,000	4,116,000	4,597,000	5,270,000	5,355,000	3,760,000	3,854,000	4,116,000	4,597,000	5,270,000
Malaysia (West) ..	5,762,440	5,349,780	5,108,342	5,151,022	4,350,333	4,420,143	3,227,000	2,996,000	2,860,000	2,879,000	2,436,000	2,475,000	3,227,000	2,996,000	2,860,000	2,879,000	2,436,000
Pakistan (g) ..	5,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Australia ..	11,552,985	16,887,000	26,204,000	37,966,000	50,297,000	51,104,000	7,385,000	10,831,000	16,767,000	24,450,000	32,215,000	32,732,000	7,385,000	10,831,000	16,767,000	24,450,000	32,215,000
New Zealand (b) ..	2,624	2,575	3,286	1,167	673	684	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>TOTAL</b> ..	<b>98,000,000</b>	<b>104,000,000</b>	<b>121,000,000</b>	<b>125,000,000</b>	<b>149,000,000</b>	<b>152,000,000</b>	<b>684</b>	<b>673</b>	<b>684</b>	<b>152,000,000</b>	<b>152,000,000</b>	<b>152,000,000</b>	<b>684</b>	<b>673</b>	<b>684</b>	<b>152,000,000</b>	<b>152,000,000</b>
<b>OTHER COUNTRIES</b>																	
Albania ..	(c) 360,000	399,000	(c) 1,400,000	n.a.	n.a.	n.a.	1,081,000	1,082,000	1,101,000	1,268,000	1,293,200	n.a.	1,081,000	1,082,000	1,101,000	1,268,000	1,293,200
Austria ..	3,420,460	3,418,400	3,427,105	3,919,110	3,933,600	3,996,700	43,000	30,000	28,000	32,000	32,000	1,393,800	43,000	30,000	28,000	32,000	32,000
Belgium ..	122,000	87,000	80,000	93,000	3,933,600	93,000	1,600,000	1,500,000	1,600,000	1,600,000	993,000	1,011,000	1,600,000	1,500,000	1,600,000	1,600,000	993,000
Bulgaria ..	2,567,000	2,457,000	2,600,000	2,690,000	2,699,000	2,407,000	660,000	570,000	510,000	510,000	474,000	482,000	660,000	570,000	510,000	510,000	474,000
Czechoslovakia ..	2,202,000	1,884,000	1,548,000	1,544,000	1,581,000	1,606,000	420,000	412,000	420,000	420,000	374,000	389,000	420,000	412,000	420,000	420,000	374,000
Finland ..	646,000	633,000	650,000	579,000	576,000	585,000	16,843,000	15,232,000	16,906,000	16,369,000	17,330,000	17,668,000	16,843,000	15,232,000	16,906,000	16,369,000	17,330,000
France ..	54,550,015	48,444,253	54,366,000	54,550,000	55,904,000	56,801,000	2,265,000	2,152,000	2,031,000	1,927,576	1,745,000	1,773,000	2,265,000	2,152,000	2,031,000	1,927,576	1,745,000
Germany—	7,083,399	6,679,268	6,345,172	5,964,682	5,443,500	5,530,900	508,000	496,000	350,000	225,000	225,000	223,000	508,000	496,000	350,000	225,000	223,000
Federal Republic (e)	1,694,000	1,653,000	1,392,000	900,000	943,500	900,000	12,000	8,000	6,000	6,000	6,000	6,000	12,000	8,000	6,000	6,000	6,000
Eastern ..	25,440	16,531	12,000	12,000	12,000	12,000	180,000	172,000	158,000	165,000	157,000	160,000	180,000	172,000	158,000	165,000	160,000
Greece ..	735,000	704,000	628,000	670,000	619,000	629,000	390,000	375,000	362,000	390,000	380,000	386,000	390,000	375,000	362,000	390,000	380,000
Italy ..	814,805	725,026	697,105	751,586	744,777	756,729	1,805,000	1,689,000	1,720,000	1,708,000	1,556,000	1,563,000	1,805,000	1,689,000	1,720,000	1,708,000	1,556,000
Luxemburg ..	6,424,519	6,204,347	6,297,403	6,211,907	5,632,081	5,722,459	1,562,000	2,068,000	2,374,662	2,374,662	2,562,000	2,603,000	1,562,000	2,068,000	2,374,662	2,374,662	2,562,000
Norway ..	2,411,839	3,324,392	3,645,052	3,792,987	3,942,560	4,005,852	1,020,000	1,029,000	1,020,000	1,020,000	894,000	868,000	1,020,000	1,029,000	1,020,000	1,020,000	894,000
Poland ..	3,005,000	3,028,000	3,002,000	2,724,000	2,513,000	2,553,850	92,000	97,000	100,000	70,000	57,000	58,000	92,000	97,000	100,000	70,000	57,000
Portugal ..	189,000	194,000	197,000	160,800	123,860	125,850	1,190,000	1,240,000	1,230,000	1,330,000	1,420,000	1,443,000	1,190,000	1,240,000	1,230,000	1,330,000	1,420,000
Roumania ..	2,639,000	2,753,000	2,704,000	2,952,000	3,155,000	3,206,000	2,500,000	2,500,000	2,948,000	3,012,000	3,208,000	3,298,000	2,500,000	2,500,000	2,948,000	3,012,000	3,208,000
Spain ..	4,835,000	5,118,000	5,889,000	5,905,000	6,843,975	6,953,801	17,189,000	17,150,000	16,500,000	20,136,000	19,500,000	19,800,000	17,189,000	17,150,000	16,500,000	20,136,000	19,500,000
Sweden ..	27,545,300	27,889,300	26,762,100	32,661,000	31,020,000	31,517,800	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Switzerland (d) ..	65,000	4,000	n.a.	n.a.	n.a.	n.a.	95,000,000	99,000,000	100,000,000	110,000,000	115,000,000	117,000,000	95,000,000	99,000,000	100,000,000	110,000,000	115,000,000
U.S.S.R. ..	157,600,000	165,594,000	174,200,000	183,200,000	192,418,000	195,506,000	95,000,000	99,000,000	100,000,000	110,000,000	115,000,000	117,000,000	95,000,000	99,000,000	100,000,000	110,000,000	115,000,000

\* For detailed figures see page 148.  
 (a) In addition bog ore and iron ore (not used for smelting) are produced.  
 (b) Used mainly or entirely for purposes other than iron production.  
 (c) United States Bureau of Mines' estimate  
 (d) Estimated.  
 (e) Marketable production.  
 (f) Exports.  
 (g) West Pakistan.

**PRODUCTION OF IRON ORE (cont.)**

Producing Country	ORE						Estimated Iron Content				Tonnes		
	Long tons						Long tons					Tonnes	
	1966	1967	1968	1969	1970	1970	1966	1967	1968	1969			1970
<b>OTHER COUNTRIES</b>													
(cont.)													
Yugoslavia	2,453,000	2,538,000	2,677,000	2,678,000	3,636,000	3,694,000	1,100,000	1,205,000	1,205,000	1,205,000	1,622,000		
Algeria	1,457,000	2,499,000	3,031,000	2,923,000	2,818,000	2,863,229	790,000	1,540,000	1,600,000	1,540,000	1,500,000		
Angola	778,062	1,136,072	3,167,385	5,391,145	5,994,691	6,090,858	510,000	3,504,000	2,059,000	3,504,000	3,896,000		
Egypt	433,083	416,000	440,000	453,000	447,000	454,000	n.a.	n.a.	n.a.	n.a.	n.a.		
Guinea	(f) 600,000	(g) 690,000	1,800,000	2,000,000	2,000,000	2,000,000	300,000	920,000	920,000	1,020,000	1,040,000		
Liberia (h)	16,290,151	17,163,135	18,930,608	20,272,654	23,189,061	23,561,186	11,077,000	11,671,000	12,873,000	13,785,000	15,769,000		
Mauritania	7,044,000	6,933,000	7,918,000	8,541,000	8,968,000	9,112,400	4,620,000	4,548,000	5,194,000	5,603,000	6,075,000		
Morocco	1,000,661	870,447	7,614,197	7,737,000	8,538,622	9,122,224	597,000	493,000	483,000	493,000	515,000		
South Africa (e)	7,568,104	7,614,987	8,102,708	8,648,890	9,047,046	9,192,224	4,540,000	4,862,000	4,862,000	5,189,000	5,515,000		
South West Africa	37,312	(a) 50,000	999,600	935,500	761,700	773,900	n.a.	n.a.	n.a.	n.a.	n.a.		
Tunisia	1,257,000	9,000	4,000	935,500	761,700	773,900	680,000	500,000	550,000	510,000	430,000		
Guatemala (f)	8,000	9,000	4,000	935,500	761,700	773,900	n.a.	n.a.	n.a.	n.a.	n.a.		
Mexico	2,460,000	2,653,000	3,151,000	3,527,000	3,800,000	3,900,000	1,474,254	1,593,000	1,772,000	1,975,000	2,160,000		
United States (c)	90,151,000	84,179,000	85,865,000	88,494,000	89,791,000	91,231,248	52,000,000	48,000,000	49,000,000	51,000,000	52,000,000		
Argentina	153,488	220,650	272,428	294,554	300,000	300,000	68,000	97,000	120,000	130,000	n.a.		
Brazil	22,887,115	23,129,000	24,800,000	29,000,000	28,000,000	28,000,000	16,020,000	17,400,000	17,400,000	15,000,000	19,000,000		
Chile	12,018,781	10,613,141	11,728,087	11,352,328	11,087,015	11,264,929	7,740,000	6,792,000	7,510,000	7,048,000	6,940,000		
Colombia	649,424	842,136	598,273	352,325	670,000	680,000	n.a.	n.a.	n.a.	n.a.	n.a.		
Peru	10,999,447	10,829,784	12,687,757	11,773,138	10,000,000	10,000,000	5,880,800	6,111,400	7,016,800	6,411,700	5,600,000		
Uruguay	1,900	2,000	2,000	n.a.	1,150	1,170	n.a.	n.a.	n.a.	n.a.	n.a.		
Venezuela	17,559,212	16,853,101	15,990,000	19,700,000	21,649,000	21,996,000	11,238,000	10,786,000	10,200,000	12,600,000	14,100,000		
China (a)	50,000,000	35,000,000	32,000,000	33,000,000	35,000,000	36,000,000	n.a.	n.a.	n.a.	n.a.	n.a.		
Iran (e)	(f) 60,000	n.a.	n.a.	n.a.	n.a.	n.a.	30,000	30,000	n.a.	n.a.	n.a.		
Japan (d)	2,332,000	2,180,000	2,137,000	1,826,000	1,548,000	1,573,000	1,300,000	1,200,000	1,180,000	1,010,000	851,000		
Korea (South)	777,200	683,000	828,700	722,407	599,000	599,000	396,000	348,000	423,000	368,000	359,000		
Korea (North)	6,000,000	6,400,000	6,900,000	7,400,000	8,000,000	8,000,000	3,300,000	3,480,000	4,230,000	3,680,000	3,500,000		
Philippine Republic	1,451,889	1,454,412	1,331,846	1,536,350	1,842,000	1,872,000	840,000	831,000	766,000	883,000	1,080,000		
Thailand	680,776	540,000	470,000	470,000	1,842,000	1,872,000	430,000	280,000	310,000	280,000	280,000		
Turkey	1,634,749	1,528,658	2,188,257	2,462,842	2,629,280	2,671,472	914,000	864,000	1,236,000	1,400,000	1,600,000		
New Caledonia...	216,800	201,000	159,000	—	—	—	121,000	110,000	93,000	—	—		
TOTAL	534,000,000	515,000,000	539,000,000	572,000,000	593,000,000	602,000,000	602,000,000	602,000,000	602,000,000	602,000,000	602,000,000		
World's Total	632,000,000	619,000,000	661,000,000	697,000,000	742,000,000	754,000,000	754,000,000	754,000,000	754,000,000	754,000,000	754,000,000		

Iron ore is also produced in Cuba, the Lebanon and North Vietnam.  
 (a) Estimated. (b) Exports. (c) Usable ore.  
 (d) Including iron sand as follows (long tons): 1966—1,239,000; 1967—1,107,987; 1968—1,114,000; 1969—n.a.; 1970—n.a.  
 (e) Including by-product magnetite as follows (long tons): 1966—878,220; 1967—860,000; 1968—911,912; 1969—1,852,035; 1970—1,935,925 (1,966,991 tonnes).  
 (f) United States Bureau of Mines' estimate.  
 (g) Years ended March 20 following that stated.

## DETAILS OF PRODUCTION OF IRON ORE IN CERTAIN COUNTRIES

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Hematite .. ..	397,900	399,500	364,800	279,000	291,600	296,300
<b>Jurassic ironstones—</b>						
Lower lias .. ..	4,754,300	4,732,100	4,741,700	4,408,000	4,616,800	4,690,900
Middle lias .. ..	1,061,000	537,600	245,100	232,000	192,900	196,000
Inferior oolite ..	7,444,700	7,069,100	8,368,900	7,184,000	6,726,900	6,834,800
<b>Sierra Leone (c)—</b>						
Concentrates .. ..	2,076,522	2,168,160	2,355,870	1,995,071	2,405,422	2,444,022
Fines .. ..	105,131	55,483	63,954	—	—	—
Ferromax .. ..	1,139	824	1,422	1,053	525	533
<b>OTHER COUNTRIES</b>						
<b>France—</b>						
Phosphoric .. ..	50,807,451	45,315,739	51,448,000	52,033,000	<i>n.a.</i>	<i>n.a.</i>
Medium phosphoric ..	3,624,059	3,086,871	2,898,000	2,505,000	<i>n.a.</i>	<i>n.a.</i>
Non-phosphoric .. ..	58,505	41,644	19,000	12,000	<i>n.a.</i>	<i>n.a.</i>
<b>Luxemburg—</b>						
Siliceous iron ore ..	2,965,075	2,862,828	2,887,314	3,120,384	3,068,492	3,117,732
Calcareous iron ore ..	3,151,375	3,067,740	3,337,684	3,049,369	2,526,769	2,566,707
Ferruginous limestone ..	308,069	273,780	72,405	41,154	37,420	38,020
<b>Portugal—</b>						
Hematite .. ..	51,000	55,000	58,000	39,208	28,120	28,572
Magnetite .. ..	86,000	86,000	87,000	66,363	42,623	43,307
Manganiferous iron ore	52,000	53,000	52,000	55,273	53,117	53,970
<b>Sweden—</b>						
Manganiferous iron ore	106,000	111,000	81,000	80,000	} 31,020,000	} 31,517,800
Other iron ore .. ..	27,439,000	27,778,000	31,827,000	32,581,000		
<i>By phosphorus content (a)</i>						
0·0% .. ..	265,736	269,672	269,672	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
0·0% to under 0·006% ..	1,162,516	1,692,637	1,433,064	1,502,000	<i>n.a.</i>	<i>n.a.</i>
0·006% to under 0·04% ..	3,465,121	3,114,349	2,012,655	4,505,000	<i>n.a.</i>	<i>n.a.</i>
0·04% to under 0·1% ..	3,840,064	3,361,481	5,703,194	3,124,000	<i>n.a.</i>	<i>n.a.</i>
0·1% to under 0·7% ..	6,457,033	6,062,642	7,692,401	7,595,000	<i>n.a.</i>	<i>n.a.</i>
0·7% to under 1% ..	2,423,489	2,724,848	3,531,685	5,197,000	<i>n.a.</i>	<i>n.a.</i>
1% and over .. ..	9,931,264	10,663,845	11,265,151	10,440,000	<i>n.a.</i>	<i>n.a.</i>
<b>United States—</b>						
<b>Ore containing less than 5% Mn—</b>						
Hematite (b) .. ..	46,602,000	40,991,000	34,627,000	39,499,000	} 89,791,000	} 91,231,000
Magnetite (b) .. ..	39,841,000	40,656,000	49,331,000	46,533,000		
Limonite .. ..	2,913,000	1,760,000	1,177,000	1,568,000		
Pyrite cinder and sinter .. ..	791,000	772,000	728,000	661,000		
<b>Ore containing 5 to under 10% Mn .. ..</b>						
	4,035	—	<i>n.a.</i>	<i>n.a.</i>		

(a) Calculated on a basis of 50% Fe content.

(b) A small quantity of hematite is included with magnetite, and a small quantity of magnetite with hematite.

(c) Exports.

**EXPORTS OF IRON ORE**  
(including Manganiferous Iron Ore)

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	217	213	1,198	334	103	105
Sierra Leone .. .. .	2,182,792	2,224,667	2,495,451	1,996,124	2,405,947	2,444,555
Canada .. .. .	30,693,745	31,406,52	36,010,719	27,906,105	38,726,592	39,348,055
Hong Kong .. .. .	138,566	167,01	168,529	183,270	175,069	177,878
India (b) .. .. .	13,191,038	13,516,997	15,498,348	16,285,529	20,854,558	21,189,221
Malaysia (West) .. .. .	5,680,684	5,245,852	5,106,707	5,262,304	4,823,618	4,901,037
Australia (e)—						
Iron ore .. .. .	337,856	d 5,468,386	d12,325,812	d 20,071,987	d33,244,279	d33,777,850
Burnt pyrites .. .. .	70,070	—	—	—	39,715	40,352
Irish Republic—						
Burnt pyrites .. .. .	1,259	—	1,491	—	2,156	2,191
<b>OTHER COUNTRIES</b>						
Albania—						
Iron ore .. .. .	367,000	386,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Austria .. .. .	120	389	572	4,244	631	641
Belgium-Luxemburg						
E.U.—						
Iron ore .. .. .	22,083	61,126	16,675	64,891	35,373	35,941
Burnt pyrites .. .. .	206,658	226,790	266,959	220,905	282,486	287,019
Denmark—						
Bog ore (a) .. .. .	25,756	27,171	16,000	23,889	20,574	20,904
Burnt pyrites .. .. .	86,790	81,975	100,139	117,325	109,641	111,401
Finland—						
Iron ore .. .. .	3,297	12,008	12,280	121,448	178,206	181,066
Burnt pyrites .. .. .	68,902	5,530	14,125	4,978	2,364	2,402
France—						
Iron ore .. .. .	17,907,510	17,260,172	18,003,976	18,223,035	18,348,811	18,643,263
Burnt pyrites .. .. .	298,446	223,365	206,440	180,334	215,616	219,076
Germany (Federal)—						
Iron ore .. .. .	295,609	326,973	18,035	17,170	9,397	9,548
Burnt pyrites .. .. .	60,747	50,606	21,638	11,865	11,698	11,886
Greece—						
Iron ore .. .. .	<i>n.a.</i>	—	591	—	—	—
Burnt pyrites .. .. .	<i>n.a.</i>	57,481	34,172	58,299	73,659	74,841
Italy—						
Iron ore .. .. .	19,043	19	23	126	76	77
Burnt pyrites .. .. .	740,234	706,466	622,871	361,143	432,244	439,180
Netherlands—						
Iron ore .. .. .	3,837	3,277	3,241	6,993	95,630	97,165
Burnt iron pyrites .. .. .	187,327	88,911	69,045	77,307	85,501	86,873
Norway—						
Iron ore .. .. .	1,414,106	2,345,625	2,697,254	2,688,547	2,917,056	2,963,866
Burnt pyrites .. .. .	66,781	120,555	137,190	138,169	150,398	152,812
Portugal—						
Burnt pyrites .. .. .	335	—	—	4,922	9,029	9,174
Spain (c) .. .. .	957,471	1,516,294	1,825,015	2,307,208	2,617,384	2,659,385
Sweden—						
Iron ore .. .. .	23,935,000	22,692,000	28,306,700	31,219,900	27,529,226	27,971,000
Burnt pyrites .. .. .	254,000	294,000	273,000	260,800	441,909	449,000
Switzerland (c) .. .. .	31,152	14,338	10,308	13,037	5,010	5,091
U.S.S.R.—						
Iron ore .. .. .	25,706,000	24,167,200	31,692,000	32,549,000	35,530,000	36,100,000
Burnt pyrites .. .. .	1,478,000	1,586,000	1,507,804	1,509,000	1,771,000	1,800,000

(a) Used for purposes other than iron making. (d) Including iron ore pellets.  
 (b) Years ended March 31 following that stated. (e) Years ended June 30 of that stated.  
 (c) Including burnt pyrites.

## EXPORTS OF IRON ORE (cont.)

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Iron ore .. ..	<i>n.a.</i>	89,714	95,808	151,318	176,039	178,864
Burnt pyrites .. ..	<i>n.a.</i>	516	2,332	1,173	83	84
Algeria—						
Iron ore .. ..	1,574,730	2,400,000	3,052,692	2,773,566	1,898,000	1,928,000
Burnt pyrites .. ..	29,944	114,365	102,286	9,547	<i>n.a.</i>	<i>n.a.</i>
Angola .. ..	616,893	768,290	r 2,412,705	5,020,000	6,234,863	6,334,914
Guinea .. ..	333,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Liberia .. ..	16,290,151	17,163,135	18,930,608	20,272,654	23,189,061	23,561,186
Mauritania .. ..	7,044,260	7,330,200	7,581,000	8,441,000	9,074,300	9,219,900
Morocco—						
Iron ore .. ..	777,301	901,297	646,243	853,994	788,484	801,137
Burnt pyrites .. ..	14,369	5,049	837	<i>n.a.</i>	234	238
South Africa .. ..	1,287,963	2,350,630	2,677,814	2,471,639	2,964,076	3,011,641
Sudan .. ..	46,941	8,612	9,857	8,610	<i>n.a.</i>	<i>n.a.</i>
Tunisia .. ..	862,492	762,642	643,621	558,497	618,524	628,449
Mexico .. ..	118	77	134	24	353	359
United States .. ..	7,778,916	5,943,198	5,926,729	5,159,823	5,397,491	5,484,105
Brazil .. ..	12,706,562	14,053,619	14,812,045	21,138,359	27,618,202	28,061,393
Chile .. ..	10,559,486	9,737,628	10,331,308	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. ..	6,207,798	5,230,481	5,122,828	5,756,856	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. ..	16,767,674	16,226,490	14,814,861	18,691,982	<i>n.a.</i>	<i>n.a.</i>
Korea (South) .. ..	631,229	657,835	759,685	661,934	506,503	514,631
Philippine Republic—						
Iron ore .. ..	1,489,319	1,527,959	r 1,491,646	1,446,000	<i>n.a.</i>	<i>n.a.</i>
Burnt pyrites .. ..	<i>n.a.</i>	11,623	19,273	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey .. ..	—	99,523	62,271	9,251	<i>n.a.</i>	<i>n.a.</i>
New Caledonia .. ..	210,621	195,106	194,435	—	—	—



**IMPORTS OF IRON ORE**  
(including Manganiferous Iron Ore)

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Iron ore .. .. .	15,542,087	15,521,447	17,246,957	17,972,830	19,594,560	19,909,049
Burnt pyrites .. .. .	400,501	553,417	343,456	196,676	53,601	54,461
Kenya .. .. .	6,642	5,500	—	5,671	9,249	9,398
Canada .. .. .	4,323,121	2,400,669	2,749,588	2,260,356	2,125,594	2,159,704
Hong Kong .. .. .	12,100	1,984	—	6,093	—	—
India (d) .. .. .	116	—	—	166	290	295
Singapore .. .. .	16,081	—	—	70	37,327	37,926
Australia (a) .. .. .	283,761	204,056	168,230	116,077	178	181
Irish Republic .. .. .	713	555	518	456	323	328
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Iron ore .. .. .	1,156,800	889,978	1,352,805	1,580,063	2,078,405	2,111,757
Burnt pyrites .. .. .	340,519	329,489	241,538	219,031	234,479	238,242
<b>Belgium-Luxemburg E.U.—</b>						
Iron ore .. .. .	21,068,540	21,533,065	25,921,327	27,082,154	28,707,965	29,168,655
Burnt pyrites .. .. .	142,590	125,126	149,968	124,179	153,237	155,696
Czechoslovakia .. .. .	9,189,000	10,202,000	10,971,000	10,546,000	12,523,000	12,724,000
Denmark (b) .. .. .	12,000	7,517	6,400	15,416	7,063	7,176
Finland .. .. .	824,090	627,820	618,349	1,187,552	731,886	743,631
<b>France—</b>						
Iron ore .. .. .	4,178,100	4,766,596	4,937,516	6,831,325	9,482,970	9,635,144
Burnt pyrites .. .. .	57,794	44,873	33,752	31,689	57,718	58,644
<b>Germany (Federal)—</b>						
Iron ore .. .. .	30,774,166	31,357,416	39,018,272	42,735,354	47,063,117	47,818,360
Burnt pyrites .. .. .	1,715,370	1,587,537	1,760,999	1,609,093	1,537,757	1,562,434
Germany (East) (c) .. .. .	1,433,200	1,524,500	1,401,400	1,298,955	1,466,074	1,488,600
Greece .. .. .	398,815	175,245	362,923	463,641	544,001	552,731
Hungary .. .. .	2,653,000	2,763,652	2,785,304	2,867,850	3,069,372	3,118,626
Italy .. .. .	8,032,473	9,769,503	9,909,465	10,785,153	10,646,755	10,817,608
Netherlands .. .. .	3,396,862	3,583,135	4,282,405	4,883,299	5,330,363	5,415,900
Norway .. .. .	8,522	7,606	13,633	46,905	99,026	100,615
Poland .. .. .	9,280,000	9,897,000	10,931,000	11,392,000	11,656,000	11,843,000
Portugal .. .. .	56,221	42,449	99,991	146,031	191,616	194,691
Roumania .. .. .	2,809,000	3,307,032	4,474,202	5,303,000	6,168,800	6,267,800
Spain .. .. .	561,184	588,547	584,750	963,366	2,392,668	2,431,064
<b>Sweden—</b>						
Iron Ore .. .. .	211,000	3,000	80,000	46,000	132,000	134,000
Burnt pyrites .. .. .	6,000	3,000	5,000	1,968	2,953	3,000
Switzerland (b) .. .. .	7,126	21,149	23,691	37,651	33,043	33,573
Yugoslavia .. .. .	386,898	126,182	197,636	257,457	208,215	211,556
Morocco (b) .. .. .	984	443	1,526	886	1,230	1,250
<b>United States—</b>						
Iron ore .. .. .	46,259,167	44,627,059	43,940,547	40,758,217	44,875,996	45,596,123
Burnt pyrites .. .. .						
Argentina .. .. .	695,738	866,155	606,001	459,826	633,183	643,344
Formosa .. .. .	104,957	66,565	49,037	56,846	72,200	73,359
<b>Japan—</b>						
Iron ore .. .. .	45,361,775	55,790,332	67,066,569	81,930,146	100,457,672	102,070,384
Burnt pyrites .. .. .	5,149	9,389	21,230	2,510	19,337	19,647

(a) Years ended June 30 of that stated.

(d) Years ended March 31 following that stated.

(b) Including burnt pyrites.

(c) Fe content.

## PRODUCTION OF PIG-IRON AND FERRO-ALLOYS\*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	15,709,700	15,153,000	16,431,700	16,359,700	17,392,600	17,671,700
Rhodesia .. .. .	256,000	256,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada .. .. .	6,607,515	6,356,067	7,633,494	6,844,216	8,299,419	8,432,624
India .. .. .	7,085,026	6,957,588	7,364,000	7,384,300	7,133,000	7,247,100
Australia (c) ..	4,666,885	4,977,334	5,483,000	6,010,000	6,051,000	6,148,000
<b>TOTAL .. .. .</b>	<b>34,370,000</b>	<b>33,691,000</b>	<b>37,168,000</b>	<b>36,840,000</b>	<b>39,132,000</b>	<b>39,758,000</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	2,164,700	2,111,400	2,440,000	2,772,000	2,923,000	2,970,000
Belgium .. .. .	8,099,687	8,761,394	10,206,220	11,014,000	10,674,000	10,845,000
Bulgaria .. .. .	855,000	1,012,000	1,100,000	1,080,000	1,232,000	1,252,000
Czechoslovakia ..	6,260,000	6,809,000	6,907,000	6,994,000	7,531,000	7,652,000
Finland .. .. .	919,000	1,021,600	1,088,000	1,214,000	1,204,000	1,223,000
France (a) .. ..	15,343,969	15,462,067	16,190,198	17,924,458	18,917,810	19,221,385
Germany—						
Federal Republic ..	25,158,000	26,933,000	29,826,000	33,231,000	33,097,000	33,628,000
Eastern .. .. .	2,409,000	2,485,000	2,296,000	2,065,000	1,962,000	1,994,000
Hungary .. .. .	1,614,000	1,631,000	1,623,000	1,725,000	1,793,000	1,822,000
Italy .. .. .	6,315,450	7,346,375	7,867,079	7,821,963	8,393,800	8,528,520
Luxemburg .. .. .	3,899,902	3,899,996	4,239,715	4,795,323	4,737,927	4,813,957
Netherlands .. ..	2,173,900	2,545,000	2,776,000	3,406,000	3,440,000	3,495,000
Norway .. .. .	1,121,240	1,212,481	1,366,379	1,418,194	1,229,000	1,249,000
Poland .. .. .	5,763,000	6,477,000	6,732,000	6,917,000	7,181,000	7,296,000
Portugal .. .. .	244,880	280,836	284,047	339,172	310,416	315,398
Roumania .. .. .	2,163,000	2,417,000	2,945,000	3,422,000	4,144,000	4,210,000
Spain .. .. .	2,149,000	2,722,000	2,824,000	3,342,000	4,210,000	4,278,000
Sweden .. .. .	2,367,451	2,534,953	2,767,600	2,742,000	2,808,300	2,853,400
Switzerland .. ..	25,000	24,000	22,000	25,000	28,000	28,000
U.S.S.R. .. .. .	69,154,000	73,630,000	77,600,000	80,342,000	84,576,000	85,933,000
Yugoslavia .. .. .	1,198,072	1,236,000	1,266,000	1,267,487	1,355,000	1,377,000
Egypt .. .. .	(d) 170,000	197,000	<i>n.a.</i>	416,000	<i>n.a.</i>	<i>n.a.</i>
South Africa .. ..	3,740,000	3,718,900	4,055,900	4,286,000	4,259,000	4,327,000
Mexico .. .. .	1,162,569	1,318,669	1,570,000	2,100,000	2,300,000	2,300,000
United States .. ..	83,931,600	79,885,000	81,558,000	87,136,100	82,333,000	83,654,000
Argentina .. .. .	510,400	600,000	559,666	571,000	802,000	815,000
Brazil .. .. .	2,916,917	2,950,000	3,300,000	3,660,000	4,100,000	4,200,000
Chile (b) .. .. .	426,000	498,000	434,600	476,000	449,000	456,000
Colombia .. .. .	166,000	203,352	201,938	198,197	<i>n.a.</i>	<i>n.a.</i>
Peru (b) .. .. .	28,000	29,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	345,000	416,000	604,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
China (d) .. .. .	20,000,000	14,000,000	19,000,000	20,000,000	22,000,000	22,000,000
Formosa .. .. .	76,079	85,408	76,590	78,459	60,074	61,039
Japan .. .. .	32,200,000	40,400,000	46,713,000	58,505,000	68,612,000	69,713,000
Korea (South) .. ..	20,270	22,039	46,000	41,000	<i>n.a.</i>	<i>n.a.</i>
Korea (North) .. ..	d 1,500,000	d 1,722,000	d 1,964,000	d 2,214,000	<i>n.a.</i>	<i>n.a.</i>
Thailand .. .. .	2,000	6,000	17,000	11,000	<i>n.a.</i>	<i>n.a.</i>
Turkey .. .. .	732,000	842,000	896,000	993,000	1,017,000	1,033,000
<b>TOTAL .. .. .</b>	<b>307,000,000</b>	<b>317,000,000</b>	<b>343,000,000</b>	<b>376,000,000</b>	<b>391,000,000</b>	<b>397,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>341,000,000</b>	<b>351,000,000</b>	<b>380,000,000</b>	<b>413,000,000</b>	<b>430,000,000</b>	<b>437,000,000</b>

\* For details see page 153.

(a) Excluding electric furnace and aluminio-thermic ferro-alloys. For these see page 154.

(b) Excluding ferro-alloys.

(c) Including recovery from scrap and excluding ferro-alloys. For ferro-alloys see page 153.

(d) United States Bureau of Mines' estimate.

DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS IN CERTAIN COUNTRIES

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Hematite .. ..	677,900	641,500	887,600	863,200	936,800	957,800
Basic .. ..	13,945,100	13,681,100	14,925,300	14,776,700	15,588,800	15,839,000
Foundry .. ..	} 926,700	} 678,700	} 453,700	} 596,100	} 699,000	} 710,200
Forge .. ..						
Direct castings ..						
Blast furnace ferro-alloys—						
Spiegeleisen .. ..	9,100	} 151,700	} 165,200	} 153,700	} 168,000	} 170,000
Ferro-manganese ..	150,900					
Canada—						
Basic .. ..	5,683,266	5,516,909	6,751,729	5,854,432	} 7,388,563	} 7,507,149
Foundry .. ..	417,529	475,394	500,446	561,329		
Malleable .. ..	338,975	213,771	232,290	246,041	} 723,896	} 735,515
Ferro-alloys (a) ..	167,745	149,993	149,029	184,414		
India—						
Basic .. ..	} 6,930,000	} 6,802,000	} 7,200,000	} 7,200,000	} 6,923,000	} 7,034,000
Foundry .. ..						
Other pig-iron ..						
Direct castings ..						
Ferro-manganese ..	135,311	133,684	143,507	152,458	170,463	173,198
Ferro-silicon .. ..	19,088	19,881	20,176	26,758	26,135	26,554
Ferro-chrome .. ..	627	68	317	5,107	13,132	13,343
Australia—						
Pig-iron .. ..	4,666,885	4,977,334	5,483,000	6,010,000	6,051,000	6,148,000
Ferro-manganese (b) ..	44,729	56,168	36,317	49,455	41,897	42,569
Ferro-silicon (b) ..	4,225	8,807	10,052	9,382	9,257	9,406
Silico-manganese (b) ..	10,716	18,940	14,870	16,036	22,822	23,188
Ferro-chrome (b) ..	1,753	2,182	2,472	2,408	2,135	2,169
Ferro-silicon zirconium ..	180	—	—	—	—	—
Ferro-nickel (b) ..	—	—	—	19	1,336	1,357
<b>OTHER COUNTRIES</b>						
Austria—						
Basic .. ..	2,131,090	2,071,705	2,406,793	2,749,960	2,866,443	2,912,441
Hematite .. ..	28,847	34,024	27,951	21,111	50,972	51,790
Electric furnace ferro-alloys .. ..	4,800	5,700	5,500	6,000	5,610	5,700
Belgium—						
Basic .. ..	7,977,674	8,655,058	9,994,616	10,896,000	10,571,000	10,741,000
Forge .. ..	—	—	—	—	—	—
Foundry .. ..	105,223	93,134	99,405	101,000	99,000	101,000
Ferro-alloys .. ..	16,790	13,202	13,780	17,000	3,000	3,000
Czechoslovakia—						
Basic .. ..	5,471,000	6,157,000	6,322,000	6,434,000	7,015,000	7,128,000
Foundry .. ..	651,000	513,000	439,000	444,000	387,000	393,000
Blast furnace ferro-alloys ..	48,000	44,000	48,000	21,000	27,000	27,000
Electric furnace ferro-alloys ..	90,000	95,000	98,000	95,000	102,000	104,000
France—						
Phosphoric (over 1.4% P)—						
Basic .. ..	12,048,514	11,893,889	12,486,121	13,115,377	13,096,296	13,306,453
Foundry .. ..	82,489	106,911	90,957	106,452	58,902	59,847
Semi-phosphoric (from 0.5% to 1.4% P)—						
Foundry .. ..	195,494	96,341	94,207	93,729	147,438	149,804
Open hearth, basic ..	(c)	(c)	(c)	(c)	(c)	(c)

(a) Factory shipments.

(b) Years ended November 30 of year stated.

(c) Included, if any, with phosphoric.

## DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES (cont.)</b>						
<b>France (cont.)—</b>						
<b>Hematite (less than 0.5%P)—</b>						
Foundry .. .. .	542,941	615,195	571,367	709,495	869,531	883,484
Open hearth and Bessemer .. .. .	1,951,609	2,322,088	2,466,278	3,330,972	4,103,800	4,169,654
<b>Blast furnace ferro-alloys—</b>						
Spiegeleisen .. .. .	52,252	56,529	368,056	420,640	478,773	486,456
Ferro-manganese .. .. .	296,762	258,340				
Other pig-iron .. .. .	173,908	113,212	112,773	147,793	163,070	165,687
<b>Electric furnace and aluminio-thermic ferro-alloys—</b>						
Ferro-silicon (50% Si) .. .. .	119,723	112,569	128,901	147,421	169,000	172,000
Silico-spiegeleisen and silico-manganese .. .. .	12,855	15,059	8,492	11,934	n.a.	n.a.
Ferro-chrome .. .. .	83,806	93,586	96,116	105,863	n.a.	n.a.
Silico-chrome .. .. .						
Ferro-tungsten (W content) .. .. .	(a) 766	(a) 606	542	580	n.a.	n.a.
Ferro-molybdenum (Mo content) .. .. .						
<b>Germany (Federal)—</b>						
<b>Hematite and malleable</b>						
Basic .. .. .	1,120,000	999,000	1,080,000	1,157,000	1,323,000	1,344,000
Foundry .. .. .	13,493,000	13,272,000	14,023,000	15,102,000	13,512,000	13,729,000
Stahleisen .. .. .	299,000	244,000	275,000	300,000	319,000	324,000
Spiegeleisen (blast-furnace) .. .. .	9,545,000	11,798,000	13,709,000	15,607,000	17,116,000	17,391,000
Ferro-manganese (blast furnace) .. .. .	291,000	250,000	323,000	234,000	247,000	251,000
Siegerland special						
Other pig-iron .. .. .	264,000	370,000	418,000	435,000	580,000	589,000
Ferro-silicon (blast-furnace) .. .. .						
Electric furnace and aluminio-thermic ferro-alloys .. .. .	145,506	129,648	n.a.	n.a.	n.a.	n.a.
<b>Germany (East)—</b>						
Foundry .. .. .	594,100	602,200	2,296,000	2,065,000	1,963,000	1,994,000
Open hearth .. .. .	1,342,300	1,408,100				
Basic Bessemer .. .. .	455,500	464,200				
Spiegeleisen .. .. .	17,100	10,600				
Other .. .. .	—	—				
<b>Hungary—</b>						
Basic .. .. .	1,559,000	1,614,000	1,599,000	1,708,000	1,763,000	1,792,000
Foundry .. .. .	48,000	9,000	12,000	18,000	24,000	24,000
Spiegeleisen .. .. .	—	2,000	1,000	—	—	—
Ferro-manganese .. .. .	2,223	7,558	10,904	n.a.	6,000	6,000
Ferro-silicon .. .. .	5,035	6,544	6,573	n.a.	n.a.	n.a.
<b>Italy—</b>						
Pig-iron .. .. .	6,158,206	7,177,487	7,700,748	7,657,635	8,199,952	8,331,561
Spiegeleisen .. .. .	3,420	4,120	4,761	4,259	3,820	3,881
Ferro-manganese .. .. .	21,847	25,511	25,103	22,507	27,148	27,584
Ferro-silicon .. .. .	61,427	62,172	58,787	63,032	76,782	78,014
Silico-manganese .. .. .	31,534	32,488	32,412	28,428	n.a.	n.a.
Ferro-chrome .. .. .	28,798	31,398	34,041	33,257	35,782	36,356
Ferro-titanium .. .. .	99	203	135	422	n.a.	n.a.
Ferro-tungsten .. .. .	15	—	11	9	n.a.	n.a.
Ferro-vanadium .. .. .	147	170	69	129	n.a.	n.a.
Ferro-molybdenum .. .. .	947	665	347	1,243	n.a.	n.a.

(a) Excluding aluminio-thermic.

## DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy (cont.)—</b>						
Silico-aluminium ..	814	711	263	501	n.a.	n.a.
Silicon pig iron (10-12% Si) ..	1,852	1,947	1,410	2,641	n.a.	n.a.
Silico-spiegeleisen ..	1,597	1,949	1,850	2,538	n.a.	n.a.
Silico-chrome ..	802	—	—	—	n.a.	n.a.
Calcium silicide ..	3,340	4,699	4,566	4,529	n.a.	n.a.
Ferro-phosphorus ..	1,138	1,176	1,204	832	n.a.	n.a.
<b>Luxemburg—</b>						
Basic .. ..	3,899,902	3,899,996	4,239,715	4,795,323	4,737,927	4,813,957
<b>Norway—</b>						
Pig-iron .. ..	619,702	626,776	663,433	671,104	667,000	678,000
Ferro-silicon ..	232,745	283,304	350,800	347,562	218,900	222,413
Ferro-manganese ..	115,221	133,226	166,598	205,502	n.a.	n.a.
Ferro-silico-manganese	119,454	131,800	139,713	144,310	n.a.	n.a.
Ferro-chrome and silico- chrome .. ..	30,948	32,222	38,699	40,927	n.a.	n.a.
Other ferro-alloys ..	3,170	5,153	7,136	8,789	n.a.	n.a.
<b>Portugal—</b>						
Basic .. ..	221,008	263,060	262,848	313,185	286,238	290,831
Foundry .. ..	15,772	10,395	13,897	15,445	16,887	17,158
Ferro-manganese ..	825	938	800	1,597	1,151	1,170
Ferro-silicon ..	7,034	6,079	6,207	8,576	5,838	5,932
Ferro-tungsten ..	241	364	295	368	302	307
<b>Spain—</b>						
Pig-iron .. ..	2,073,000	2,644,000	2,735,000	3,248,000	4,099,000	4,165,000
Ferro-manganese ..	35,396	40,284	40,294	44,092	57,870	58,799
Ferro-silicon ..	18,237	21,873	20,483	24,703	28,793	29,255
Ferro-tungsten ..	} 22,551	} 15,649	} 28,345	} 24,999	} 23,798	} 24,180
Ferro-chrome ..						
Ferro-phosphorus ..						
Other ferro-alloys ..						
<b>Sweden—</b>						
Pig-iron .. ..	2,188,509	2,320,381	2,441,500	2,489,649	2,566,400	2,607,600
Ferro-manganese ..	25,014	38,772	34,300	28,936	31,300	31,800
Ferro-silicon ..	28,749	29,857	38,100	40,451	46,100	46,800
Ferro-silico-manganese	20,718	24,919	29,800	39,467	32,200	32,700
Ferro-chrome ..	55,192	53,980	59,800	61,414	62,700	63,700
Ferro-tungsten ..	51	316	492	492	500	500
Ferro-molybdenum ..	2,304	2,141	2,700	3,445	3,400	3,500
Ferro-vanadium ..	430	356	500	689	700	700
Metallic silicon ..	8,805	8,781	8,100	9,547	11,900	12,100
Silico-chrome ..	37,259	55,329	61,300	67,910	53,100	54,000
Other ferro-alloys ..	186	122	—	—	—	—
<b>U.S.S.R.—</b>						
Basic .. ..	58,887,000	63,134,000	66,721,000	70,391,000	74,454,000	75,649,000
Foundry .. ..	8,837,000	9,161,000	9,437,000	8,789,000	9,015,000	9,160,000
Spiegeleisen ..	91,000	90,000	74,000	85,000	100,000	102,000
Ferro-manganese ..	888,000	897,000	929,000	865,000	953,000	968,000
Other blast furnace ferro-alloys ..	451,000	349,000	383,000	216,000	53,000	54,000
<b>Yugoslavia—</b>						
Pig-iron .. ..	1,125,155	1,158,000	1,182,000	1,179,079	1,255,000	1,275,000
Ferro-alloys ..	72,917	77,422	83,658	88,407	100,000	102,000
<b>South Africa—</b>						
Pig-iron .. ..	3,367,900	3,366,200	3,713,100	3,868,700	3,867,200	3,929,300
Ferro-alloys ..	372,100	352,700	342,900	417,300	392,000	398,300
<b>United States—</b>						
Basic .. ..	74,529,700	72,629,000	74,461,000	80,257,600	77,177,000	78,415,000
Bessemer .. ..	2,573,200	1,537,000	1,283,000	1,166,100	1,292,000	1,313,000
Low phosphorus ..	186,600	148,000	151,000	85,700	130,000	132,000
Foundry .. ..	1,493,800	1,384,000	1,371,000	1,651,800	1,524,000	1,548,000
Malleable .. ..	2,542,900	1,634,000	1,611,000	1,300,000	1,263,000	1,283,000

## DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States <i>(cont.)</i> —						
Other pig-iron .. ..	370,500	332,000	391,000	375,900	252,000	256,000
Ferro-manganese and spiegeleisen .. ..	816,100	842,000	804,000	} 2,299,000	{ 743,000	755,000
Ferro-silicon and silvery pig-iron .. ..	(a) 463,400	(a) 471,000	(a) 487,000			
Other ferro-alloys .. ..	955,400	908,000	1,014,000			
Brazil—						
Pig-iron .. ..	2,865,576	3,050,000	3,300,000	} 3,660,000	4,100,000	4,200,000
Ferro-chrome .. ..	2,978	<i>n.a.</i>	<i>n.a.</i>			
Ferro-columbium .. ..	452	520	1,126			
Ferro-manganese .. ..	27,795	<i>n.a.</i>	<i>n.a.</i>			
Ferro-nickel .. ..	3,708	<i>n.a.</i>	<i>n.a.</i>			
Ferro-silicon .. ..	9,178	<i>n.a.</i>	<i>n.a.</i>			
Ferro-silico-manganese	7,230	<i>n.a.</i>	<i>n.a.</i>			
Japan—						
Pig-iron .. ..	31,512,000	39,462,000	45,664,000	57,229,000	66,973,800	68,048,500
Spiegeleisen .. ..	500	700	400	300	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. ..	135,100	194,300	211,000	255,000	355,000	361,500
Ferro-manganese .. ..	233,800	297,800	339,000	375,000	437,500	444,500
Ferro-molybdenum .. ..	1,700	2,000	2,200	2,500	3,100	3,200
Ferro-phosphorus .. ..	2,000	2,400	2,400	2,100	<i>n.a.</i>	<i>n.a.</i>
Ferro-silicon .. ..	136,400	144,000	164,000	221,000	297,500	302,300
Ferro-tungsten .. ..	700	1,100	800	1,200	1,300	1,300
Ferro-nickel .. ..	70,400	105,200	132,000	177,000	260,500	264,700
Silico-manganese .. ..	124,100	173,100	187,000	226,000	<i>n.a.</i>	<i>n.a.</i>
Calcium-silicon .. ..	7,200	7,800	9,700	11,200	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Pig-iron .. ..	725,000	834,000	896,000	933,000	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. ..	7,000	8,337	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Excluding silvery pig-iron, included with "other pig-iron".

## PRODUCTION OF STEEL INGOTS AND CASTINGS\*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	24,315,300	23,895,200	25,862,200	26,422,300	27,869,200	28,316,500
Rhodesia (c) .. .. .	128,000	134,000	n.a.	n.a.	n.a.	n.a.
Canada .. .. .	8,931,132	8,6661,457	10,045,532	9,202,278	11,023,332	11,200,256
India .. .. .	(c)6,502,000	c) 6,216,000	6,600,000	6,366,000	6,002,000	6,098,000
Australia (f) .. .. .	5,796,813	6,167,000	6,399,000	6,906,000	6,714,000	6,822,000
<b>TOTAL .. .. .</b>	<b>45,700,000</b>	<b>45,100,000</b>	<b>49,050,000</b>	<b>49,040,000</b>	<b>51,740,000</b>	<b>52,570,000</b>
Irish Republic (d) .. .. .	55,600	64,000	66,000	75,000	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Austria .. .. .	3,142,383	2,975,224	3,412,719	3,864,000	4,015,000	4,079,000
Belgium .. .. .	8,700,000	9,546,000	11,400,000	12,629,000	12,407,000	12,606,000
Bulgaria .. .. .	689,000	1,219,000	1,438,000	1,491,000	1,772,000	1,800,000
Czechoslovakia .. .. .	8,984,000	9,844,000	10,388,000	10,631,000	11,298,000	11,480,000
Denmark .. .. .	398,300	395,000	450,000	474,000	466,000	473,000
Finland .. .. .	409,000	421,000	696,000	898,000	1,151,000	1,169,000
France .. .. .	19,275,848	19,344,752	20,087,668	22,155,833	23,397,737	23,773,201
Germany—						
Federal Republic .. .. .	34,758,000	36,164,000	40,509,000	44,600,000	44,329,000	45,041,000
Eastern .. .. .	4,020,000	4,176,000	4,622,000	4,748,000	4,972,900	5,052,700
Greece .. .. .	196,000	269,000	215,000	443,000	n.a.	n.a.
Hungary .. .. .	2,607,000	2,696,000	2,857,000	2,984,000	3,061,000	3,110,000
Italy .. .. .	13,423,208	15,648,746	16,683,992	16,168,669	17,004,386	17,277,264
Luxemburg .. .. .	4,320,794	4,410,262	4,757,753	5,433,769	5,376,183	5,462,455
Netherlands .. .. .	3,216,300	3,350,000	3,648,000	4,639,000	4,962,000	5,042,000
Norway .. .. .	716,300	766,000	810,000	840,000	856,000	870,000
Poland .. .. .	9,694,000	10,289,000	10,833,000	11,100,000	11,606,000	11,792,000
Portugal .. .. .	261,288	305,864	307,000	394,000	379,000	385,000
Roumania .. .. .	3,612,000	4,023,000	4,676,000	5,453,000	6,414,000	6,517,000
Spain .. .. .	3,786,000	4,279,000	4,862,000	5,818,000	7,271,563	7,388,250
Sweden .. .. .	4,678,726	4,570,000	5,014,000	5,239,000	5,409,000	5,496,000
Switzerland .. .. .	421,000	438,000	446,000	492,000	516,000	524,000
U.S.S.R. .. .. .	95,376,000	100,620,000	104,850,000	108,549,000	114,056,000	115,886,000
Yugoslavia .. .. .	1,837,824	1,803,000	1,965,000	2,185,000	2,193,000	2,228,000
Egypt .. .. .	194,204	196,000	187,000	482,000	n.a.	n.a.
South Africa (a) .. .. .	3,092,300	3,521,300	3,869,700	4,428,800	4,671,100	4,745,800
Mexico .. .. .	2,743,454	2,991,642	3,200,000	3,400,000	3,800,000	3,840,000
United States (b) .. .. .	119,733,400	113,584,000	117,378,000	126,127,300	117,420,000	119,304,000
Argentina (c) .. .. .	1,250,300	1,304,000	1,548,279	1,673,656	1,746,154	1,774,175
Brazil .. .. .	3,800,000	3,500,000	4,300,000	4,847,000	5,305,000	5,390,000
Chile (c) .. .. .	531,000	586,881	517,300	592,000	538,000	547,000
Colombia .. .. .	171,000	256,000	n.a.	263,000	234,000	238,000
Peru .. .. .	76,000	75,000	104,000	n.a.	n.a.	n.a.
Uruguay .. .. .	10,200	13,300	8,400	14,000	n.a.	n.a.
Venezuela .. .. .	514,000	656,000	735,000	833,000	912,000	927,000
Burma (e) .. .. .	15,000	21,000	21,000	21,000	n.a.	n.a.
China (e) .. .. .	16,000,000	11,000,000	15,000,000	16,000,000	17,000,000	17,000,000
Formosa .. .. .	295,000	e 246,000	e 246,000	267,000	289,000	294,000
Israel .. .. .	e 83,000	84,000	100,000	120,000	120,000	120,000
Japan .. .. .	47,029,100	61,172,000	65,837,000	80,868,000	91,848,000	93,322,000
Korea (North) .. .. .	e 1,300,000	e 1,427,000	e 1,723,000	1,968,000	n.a.	n.a.
Korea (South) .. .. .	214,418	324,000	360,000	513,000	473,000	481,000

\* For details see page 159.

(a) Excluding steel castings for which the amounts produced for sale were 99,700 tons, 146,000 tons, 125,800, 117,700 tons, and 151,300 tons (153,700 tonnes) in 1966, 1967, 1968, 1969 and 1970 respectively.

(b) Excluding steel castings which were produced by companies not manufacturing steel ingots.

(c) Ingots only.

(f) Including recovery from scrap.

(d) Years ended June 30 of that stated.

(e) United States Bureau of Mines' estimate.

PRODUCTION OF STEEL INGOTS AND CASTINGS (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Thailand .. ..	5,000	3,000	5,000	4,000	<i>n.a.</i>	<i>n.a.</i>
Turkey (a) .. ..	829,000	981,000	1,092,000	1,151,000	1,291,000	1,312,000
<b>TOTAL .. ..</b>	<b>422,000,000</b>	<b>440,000,000</b>	<b>471,000,000</b>	<b>514,000,000</b>	<b>532,000,000</b>	<b>540,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>468,000,000</b>	<b>485,000,000</b>	<b>520,000,000</b>	<b>563,000,000</b>	<b>583,000,000</b>	<b>593,000,000</b>

(a) Ingots only.



**DETAILS OF PRODUCTION OF STEEL INGOTS AND CASTINGS  
IN CERTAIN COUNTRIES**

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ingots and castings—						
Open hearth, acid ..	255,900	131,700	154,200	166,100	} 13,163,600	13,374,900
do. basic ..	14,114,700	13,518,400	14,028,400	13,785,600		
Bessemer, acid (a) ..	} 6,601,300	6,826,700	7,528,600	7,609,800	9,275,200	9,424,000
do. basic (a) ..						
Ingots, electric ..	} 3,343,400	3,418,400	4,151,000	4,860,800	5,430,400	5,517,600
Castings, electric ..						
All other ingots and castings ..	(b)	(b)	(b)	(b)	(b)	(b)
Canada—						
Ingots—						
Open hearth, basic and oxygen ..	7,728,426	7,530,683	8,659,364	7,649,434	9,396,854	9,547,674
do. electric ..	1,034,132	999,645	1,259,035	1,414,714	1,455,299	1,478,656
Castings—						
Open hearth, basic ..	} 168,574	131,129	127,133	138,130	171,179	173,926
Electric ..						
India—						
Ingots—						
Open hearth, basic ..	} 6,502,000	6,216,000	6,600,000	6,366,000	6,002,000	6,098,000
Electric ..						
<b>OTHER COUNTRIES</b>						
Austria—						
Open hearth ..	823,472	594,763	607,328	713,000	653,000	663,000
Electric ..	391,727	388,085	423,248	467,000	486,000	494,000
L.D. ..	1,927,184	1,992,376	2,382,143	2,685,000	2,876,000	2,922,000
Belgium—						
Ingots, open hearth ..	245,521	211,472	188,000	270,000	276,000	280,000
do. Bessemer, basic ..	6,144,916	6,339,768	6,408,000	6,115,500	5,162,000	5,245,000
do. electric ..	302,787	285,813	307,000	343,000	444,000	451,000
do. oxygen ..	1,987,332	2,645,852	4,401,000	5,687,000	6,525,000	6,630,000
Czechoslovakia—						
Open hearth ..	7,285,000	7,318,000	7,374,000	7,417,000	7,717,000	7,841,000
Bessemer ..	238,000	243,000	242,000	241,000	227,000	231,000
Electric ..	1,190,000	1,240,000	1,252,000	1,250,000	1,323,000	1,344,000
Oxygen ..	271,000	1,043,000	1,520,000	1,743,000	2,031,000	2,064,000
Denmark—						
Ingots, open hearth ..	373,400	} 379,900	432,000	457,000	447,000	454,000
Castings do. ..	8,100					
do. electric ..	16,800	14,800	17,700	18,700	19,000	19,000
Finland—						
Ingots ..	393,000	405,000	680,000	} 898,000	1,151,000	1,164,000
Castings ..	16,000	16,000	16,000			
France—						
Ingots and castings—						
Bessemer, acid ..	65,673	66,110	56,313	59,694	60,216	61,182
do. basic ..	10,138,067	9,952,647	10,341,283	10,495,893	9,616,310	9,770,623
Open hearth, acid ..	} 4,412,322	4,216,285	4,008,154	4,397,525	4,367,795	4,437,885
do. basic ..						
Crucible ..	566	—	—	—	—	—
Electric ..	1,833,469	1,874,619	2,035,258	2,333,929	2,570,230	2,611,475
Kaldo, L.D., etc. ..	2,825,751	3,235,090	3,646,660	4,868,793	6,783,186	6,892,036
Of which—						
Ingots ..	18,943,472	19,004,481	19,708,471	21,725,025	22,950,963	23,319,258
Castings ..	332,376	340,271	379,197	430,809	446,774	453,943

(a) Bessemer acid and basic includes V.L.N., L.D., Rotor and Kaldo.

(b) Included with Bessemer.

## DETAILS OF PRODUCTION OF STEEL INGOTS AND CASTINGS (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Germany (Federal)— Ingots—						
Open hearth .. ..	13,488,000	13,335,000	14,257,000	13,229,000	11,573,000	11,759,000
Bessemer, basic ..	9,640,000	8,333,000	7,543,000	6,699,000	3,582,000	3,640,000
Electric .. ..	2,545,000	3,059,000	3,069,000	3,458,000	3,721,000	3,781,000
Oxygen .. ..	8,516,000	11,379,000	15,017,000	20,509,000	24,739,000	25,136,000
Castings—						
Open hearth .. ..	57,000	49,000	57,000	73,000	60,000	61,000
Electric .. ..	497,000	462,000	557,000	622,000	645,000	655,000
Other .. ..	15,000	8,000	9,000	10,000	9,000	9,000
Germany (East)—						
Open hearth .. ..	3,209,300	3,834,000	} 4,622,000	4,748,000	4,972,900	5,052,700
Bessemer, basic ..	371,900	367,700				
Electric .. ..	438,800	474,500				
Italy—						
Ingots .. ..	13,252,048	15,401,724	16,436,060	15,907,762	16,729,915	16,998,388
Castings .. ..	171,160	237,180	247,932	260,906	274,471	278,876
Luxemburg—						
Bessemer, basic and oxygen .. ..	4,270,272	4,369,809	4,691,179	3,439,847	3,256,736	3,308,997
Electric .. ..	50,522	40,453	66,574	95,435	96,194	97,738
L.D.A.C. .. ..	n.a.	n.a.	n.a.	1,898,487	2,023,253	2,055,720
Norway—						
Ingots .. ..	687,042	750,501	768,890	804,000	817,000	830,000
Castings .. ..	29,300	27,000	42,000	36,000	39,000	40,000
Portugal—						
Ingots—						
L.D. .. ..	210,259	261,855	268,072	321,276	296,343	301,099
Electric .. ..	43,254	35,178	29,161	61,874	69,020	70,128
Castings .. ..	7,775	8,831	10,000	10,800	14,000	14,000
Spain—						
Open hearth and Bessemer .. ..	1,953,000	1,994,000	1,925,000	1,881,000	1,921,220	1,952,050
Electric .. ..	1,285,000	1,378,000	1,696,000	2,067,000	2,557,465	2,598,505
Oxygen .. ..	548,000	907,000	1,241,000	1,870,000	2,792,877	2,837,695
Sweden—						
Open hearth, acid do. basic .. ..	445,684	418,118	459,000	} 1,332,000	1,227,000	1,247,000
Bessemer, basic ..	1,013,869	1,013,338	900,000			
Electric .. ..	140,908	94,550	46,000	35,000	30,000	30,000
Other .. ..	1,708,534	1,717,866	1,957,000	2,154,000	2,245,000	2,281,000
Other .. ..	1,369,731	1,534,434	1,652,000	1,718,000	1,907,000	1,938,000
U.S.S.R.—						
Open hearth .. ..	78,378,000	80,476,000	82,498,000	82,449,000	82,725,000	84,052,000
Bessemer .. ..	1,930,000	1,851,000	1,811,000	1,439,000	1,170,000	1,189,000
Electric .. ..	8,736,000	9,082,000	9,380,000	9,736,000	10,541,000	10,710,000
Other .. ..	6,332,000	9,211,000	11,160,000	14,949,000	19,620,000	19,935,000
of which—						
Ingots .. ..	89,063,000	94,438,000	98,166,000	101,632,000	107,019,000	108,736,000
Castings .. ..	6,313,000	6,478,000	6,684,000	6,942,000	7,037,000	7,150,000
Yugoslavia—						
Open hearth .. ..	1,547,713	1,525,519	1,573,000	1,593,000	1,585,000	1,610,000
Electric .. ..	289,213	277,546	392,000	592,000	608,000	618,000
South Africa—						
Ingots—						
Open hearth (in- cluding duplex) ..	1,649,400	1,747,200	1,884,700	1,834,100	1,785,000	1,813,600
Oxygen .. ..	1,002,800	1,256,900	1,371,400	1,612,400	1,578,200	1,603,500
Electric .. ..	440,100	517,200	613,700	982,300	1,156,600	1,174,600
Castings (a) .. ..	99,700	97,400	125,800	117,700	151,300	153,700

(a) Produced for sale.

DETAILS OF PRODUCTION OF STEEL INGOTS AND CASTINGS (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States—						
Ingots and castings (a)—						
Open hearth, acid ..	197,300	125,000	} 58,782,000	54,369,900	42,876,700	43,564,400
do. basic ..	75,718,100	62,991,000				
Bessemer .. ..	248,200	(b)				
Oxygen .. ..	30,293,000	36,995,000	43,582,000	53,782,400	56,544,000	57,451,000
Electric .. ..	13,276,800	13,473,000	15,013,000	17,975,000	18,002,000	18,291,000
Of which—						
Ingots .. ..	119,450,400	113,410,000	117,223,000	125,973,000	117,278,000	119,159,000
Castings .. ..	283,000	173,000	155,000	154,000	145,000	147,000
Japan—						
Open hearth .. ..	8,498,500	8,899,100	5,344,000	5,157,000	3,794,000	3,855,000
Bessemer, basic ..	29,439,900	40,000,000	48,494,000	62,000,000	72,681,000	73,847,000
Electric .. ..	9,090,700	11,181,500	11,996,000	13,518,000	15,373,000	15,620,000

(a) Excluding steel castings produced by companies not manufacturing steel ingots.

(b) Included with open hearth.

EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Pig-iron—						
Forge and foundry ..	6,856	8,637	15,783	5,372	9,888	10,047
Refined .. ..	7,000	6,516	5,798	12,866	54,548	55,423
Other .. ..	26,078	116,924	43,750	72,524		
Iron and steel powders, shot and sponge .. ..	18,122	15,614	18,163	20,461	23,262	23,635
Spiegeleisen .. ..	—	10	31	96	—	—
Ferro-manganese .. ..	22,101	17,794	22,463	340	2,226	2,262
Ferro-tungsten .. ..	1,175	1,176	1,366	1,638	2,258	2,294
Ferro-molybdenum .. ..	478	209	671	1,272	1,653	1,680
Ferro-titanium .. ..	1,085	977	1,456	1,282	1,543	1,568
Ferro-vanadium .. ..	61	41	42	55	55	56
Ferro-niobium and ferro-niobium-tantalum .. ..	196	175	152	281	203	206
Other ferro-alloys .. ..	3,173	4,721	3,432	4,286	6,455	6,559
Ingots, blooms, billets ..	82,742	277,071	208,488	114,336	142,450	144,736
Old and scrap (a) .. ..	274,490	1,116,374	901,339	551,525	402,886	409,352
Channel Islands—						
Scrap (c) .. ..	1,864	2,518	2,930	2,081	3,468	3,524
Malta—						
Scrap .. ..	5,624	7,142	6,331	9,187	11,058	11,236
Kenya—						
Scrap .. ..	5,628	5,490	2,368	3,680	6,696	6,804
Nigeria—						
Scrap .. ..	9,519	6,656	7,409	20,173	12,338	12,536
Tanzania—						
Scrap .. ..	2,283	3,633	1,273	3,428	2,958	3,005
Barbados—						
Scrap .. ..	n.a.	n.a.	n.a.	—	100	102
Jamaica—						
Scrap .. ..	148	n.a.	n.a.	n.a.	n.a.	n.a.
Trinidad and Tobago—						
Old and scrap .. ..	6,644	2,877	461	7,263	16,335	16,597
Canada—						
Pig-iron .. ..	452,892	433,656	489,860	644,325	573,926	583,136
Ferro-chrome .. ..	31	—	1	—	—	—
Ferro-manganese .. ..	5,109	3,874	909	4,921	502	510
Ferro-silicon .. ..	33,949	37,437	42,156	43,303	44,629	45,345
Other ferro-alloys .. ..	5,314	1,056	571	2,875	3,656	3,715
Ingots, blooms, billets ..	197,307	156,988	266,297	153,400	148,115	150,492
Old and scrap .. ..	266,639	389,044	385,976	651,781	606,616	616,350
Tin-plate scrap .. ..	20,903	21,055	14,683	18,763	21,610	21,957
Hong Kong—						
Old and scrap .. ..	92,968	115,310	109,773	111,604	192,448	195,534
Tinplate scrap .. ..	1,230	1,276	3,923	2,518	2,297	2,334
India(b)—						
Pig-iron .. ..	168,165	550,724	756,153	497,764	494,104	502,033
Ferro-manganese .. ..	10,127	28,833	69,150	113,618	86,122	87,504
Ingots, blooms, billets ..	2,231	47,750	116,873	11,006	57,278	58,197
Old and scrap .. ..	444,917	563,398	395,444	346,724	226,719	230,356
Malaysia (West)—						
Scrap .. ..	31,939	36,642	25,121	23,729	15,469	15,717
Singapore—						
Pig-iron .. ..	2,359	1,433	909	250	214	217
Ingots, blooms, etc. .. ..	2,044	1,100	3,266	1,914	1,613	1,639
Scrap .. ..	8,455	3,535	592	1,105	4,831	4,909

(a) Excluding ships intended for breaking up as follows (gross tonnage): 1966—59,960; 1967—89,130; 1968—39,730; 1969—47,379; 1970—45,563 (46,294 tonnes).

(b) Years ended March 31 following that stated.

(c) Jersey only.

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Australia (a)—						
Pig-iron .. ..	49,831	129,751	182,929	346,183	285,824	290,411
Ferro-alloys .. ..	51	16,922	314	304	179	182
Ingots, blooms, billets ..	80,768	365,359	343,461	424,838	443,506	450,623
Old and scrap .. ..	250,082	338,005	344,917	419,419	509,975	518,160
Tin-plate scrap .. ..	14,989	65,123	78,231	62,563	10,922	11,097
New Zealand (a)—						
Scrap .. ..	4,985	5,448	5,532	5,726	n.a.	n.a.
Irish Republic—						
Old and scrap .. ..	18,346	31,533	20,056	11,182	11,358	11,540
<b>OTHER COUNTRIES</b>						
Austria—						
Pig-iron .. ..	660	8,811	14,403	33,870	24,664	25,060
Ferro-alloys .. ..	3,903	4,317	5,034	5,101	5,271	5,356
Ingots and blooms .. ..	5,123	6,052	42,353	9,399	2,102	2,136
Scrap .. ..	5,441	11,377	6,021	4,961	6,209	6,309
Belgium-Luxembourg						
E.U.—						
Pig-iron .. ..	73,693	89,882	79,021	53,174	18,272	18,565
Spiegeleisen .. ..	2,066	3,150	2,542	2,923	4,256	4,324
Ferro-manganese .. ..	63,070	64,106	60,164	65,716	68,309	69,405
Other ferro-alloys .. ..	2,954	2,179	2,728	4,474	4,774	4,851
Ingots .. ..	20,520	6,948	7,391	109,687	58,540	59,479
Blooms, billets, etc. ..	641,885	552,521	639,173	798,003	726,643	738,304
Old and scrap .. ..	728,682	805,505	774,821	679,420	729,604	741,312
Bulgaria—						
Pig-iron .. ..	363,006	75,587	17,224	n.a.	n.a.	n.a.
Denmark—						
Blooms, billets, etc. ..	3,042	2,344	2,485	3,332	2,945	2,992
Old and scrap .. ..	37,252	61,589	70,922	23,203	23,930	24,314
Finland—						
Pig-iron .. ..	771,419	779,296	674,116	558,282	310,042	315,017
Ferro-chrome and						
ferro-silico-chrome ..	—	—	580	19,359	29,000	29,465
Blooms, billets, etc. ..	5,395	1,433	39	45,081	202,736	205,989
Old and scrap .. ..	3,566	4,828	10,231	6,172	4,332	4,402
France—						
Pig-iron .. ..	55,865	70,546	45,756	40,832	146,475	148,826
Spiegeleisen .. ..	12,073	7,492	7,162	2,436	2,860	2,906
Ferro-manganese .. ..	184,815	167,227	204,910	227,058	295,642	300,386
Ferro-silicon .. ..	20,470	23,557	29,469	42,628	46,654	47,403
Ferro-chrome .. ..	22,727	19,536	21,318	12,711	11,209	11,389
Other ferro-alloys .. ..	19,693	23,067	30,066	40,840	62,414	63,416
Ingots .. ..	91,797	109,488	105,305	130,363	138,004	140,219
Blooms, billets, etc. ..	406,003	448,157	286,278	344,247	609,791	619,576
Old and scrap .. ..	1,793,996	2,156,413	2,157,290	2,193,934	2,595,228	2,636,874
Germany (Federal)—						
Pig-iron .. ..	r 578,120	r 1,275,273	r 803,063	960,818	867,476	881,397
Spiegeleisen .. ..	11,533	12,278	13,804	11,156	15,278	15,523
Ferro-alloys .. ..	118,102	69,465	112,492	91,528	95,617	97,151
Ingots, blooms, billets ..	892,747	1,333,789	1,095,943	895,543	706,446	717,782
Old and scrap .. ..	1,948,780	2,091,848	1,817,670	1,801,539	2,173,884	2,208,768
Hungary—						
Pig iron .. ..	78,318	78,240	62,431	16,327	47,817	48,584
Iceland—						
Scrap .. ..	1,399	1,760	n.a.	3,568	1,486	1,510

(a) Years ended June 30 of that stated.

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.

Exporting Country and Description	Long tons					Tonne
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>Italy—</b>						
Pig-iron .. ..	195	157	470	148	5,154	5,237
Spiegeleisen .. ..	29	6	67	52	66	67
Ferro-manganese .. ..	9,125	8,478	17,042	7,758	6,060	6,157
Ferro-molybdenum .. ..	1	1	129	859	854	868
Ferro-silicon .. ..	1,854	1,442	1,336	1,185	2,303	2,340
Ferro-silico-manganese .. ..	540	117	139	163	566	575
Ferro-chrome .. ..	7,941	7,498	7,116	7,329	5,911	6,006
Ferro-vanadium .. ..	5	n.a.	1	41	20	20
Other ferro-alloys .. ..	249	595	279	365	779	792
Ingots .. ..	34,157	14,588	30,701	28,943	47,952	48,722
Blooms, billets, etc. .. ..						
Scrap .. ..	2,030	2,504	6,819	18,393	13,528	13,745
<b>Netherlands—</b>						
Pig-iron .. ..	97,069	291,919	118,919	54,971	1,569	1,594
Sponge iron .. ..	61	18	2	86	6	6
Ferro-alloys .. ..	727	658	788	217	424	431
Ingots, blooms and billets .. ..	266,145	800,116	725,177	996,739	998,868	1,014,897
Old and scrap .. ..	387,647	556,792	699,557	673,602	802,166	815,038
<b>Norway—</b>						
Pig-iron .. ..	180,263	152,893	189,673	177,904	147,346	149,711
Ferro-chrome .. ..	28,797	27,065	33,690	37,894	31,989	32,502
Ferro-manganese .. ..	112,460	118,611	141,483	185,147	152,628	155,077
Ferro-silicon .. ..	216,214	263,125	323,615	340,971	213,023	216,441
Ferro-silico-manganese .. ..	106,830	111,466	129,790	141,217	125,257	127,267
Other ferro-alloys .. ..	3,423	4,714	12,771	10,281	3,688	3,747
Ingots, blooms, billets .. ..	110,951	172,273	30,162	45,701	26,345	26,768
Old and scrap .. ..	14,860	6,267	29,166	36,900	34,424	34,976
<b>Poland—</b>						
Pig-iron .. ..	9,842	262,883	423,611	449,783	360,842	366,633
Ferro-alloys .. ..	3,024	284	1,042	2,276	1,416	1,439
<b>Portugal—</b>						
Pig-iron .. ..	535	8	197	201	30	30
Ferro-alloys .. ..	6,282	7,789	6,085	8,345	6,763	6,872
Old and scrap .. ..	11,562	13,295	35,391	14,707	5,893	5,988
<b>Spain—</b>						
Pig-iron .. ..	88,944	14,418	111,972	40,598	20,142	20,465
Ferro-silicon .. ..	8,537	9,275	11,476	4,722	1,456	1,479
Other ferro-alloys .. ..	2,715	4,399	12,004	7,764	4,810	4,887
Ingots, blooms, billets .. ..	23,583	—	1,173	27,900	28,897	29,361
<b>Sweden—</b>						
Pig-iron .. ..	13,616	81,342	40,866	70,168	1,594	1,620
Sponge iron .. ..	64,152	51,189	55,009	68,804	n.a.	n.a.
Ferro-manganese .. ..	8,028	12,561	15,052	25,440	9,120	9,266
Ferro-silicon .. ..	1,529	3,907	6,074	13,697	19,343	19,654
Ferro-silico-manganese .. ..	15	471	29	2,459	787	800
Ferro-chrome .. ..	22,555	22,979	22,591	21,372	20,503	20,832
Ferro-tungsten .. ..	147	104	142	1	1	1
Other ferro-alloys .. ..	2,600	9,425	5,804	11,301	8,367	8,501
Ingots .. ..	57,180	55,114	54,667	82,419	86,433	87,820
Blooms, billets, etc. .. ..						
Old and scrap .. ..	18,367	16,975	11,244	15,687	14,308	14,538
<b>Switzerland—</b>						
Pig-iron .. ..	—	3	185	2	1	1
Ferro-alloys .. ..	9,790	11,761	9,260	11,429	12,076	12,270
Old and scrap .. ..	16,575	30,027	28,713	26,821	26,273	26,695
<b>U.S.S.R.—</b>						
Pig iron .. ..	4,314,500	4,362,100	4,450,700	4,617,000	4,724,191	4,800,000
Ferro-manganese .. ..	86,000	85,626	95,665	105,800	116,628	118,500
Ferro-silicon .. ..	90,000	98,800	110,000	116,500	122,927	124,900
Other ferro-alloys .. ..	30,800	32,800	34,700	38,600	45,300	46,000
Steel ingots and billets .. ..	1,010,000	1,025,937	943,460	1,106,800	1,194,433	1,213,600
Scrap .. ..	605,600	666,900	653,600	1,304,300	1,377,889	1,400,000

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Yugoslavia—						
Pig-iron .. .. .	1,377	75,746	—	—	—	—
Ferro-chrome .. .. .	9,090	8,028	8,303	5,811	9,998	10,158
Ferro-manganese .. .. .	701	389	20	1,344	1,181	1,200
Silico-manganese .. .. .	8,960	11,215	16,484	14,866	14,217	14,445
Ferro-silicon .. .. .	10,481	16,312	24,254	23,501	21,639	21,986
Steel ingots .. .. .	1,911	7,366	37,337	26,200	5,292	5,377
Scrap .. .. .	720	32,664	18,564	3,424	4,992	5,072
Morocco—						
Old and scrap .. .. .	27,811	34,353	25,026	37,917	42,707	43,392
Mozambique—						
Scrap .. .. .	5,304	4,989	5,505	9,065	12,271	12,468
South Africa—						
Pig-iron .. .. .	757,757	918,499	661,975	602,084	447,603	454,786
Ferro-manganese .. .. .	154,400	125,816	127,603	249,937	210,054	213,424
Other ferro-alloys .. .. .	110,545	117,787	242,742	133,340	107,641	109,368
Ingots, blooms, billets ..	3,855	792	1,129	69,985	19,065	19,371
Sudan—						
Scrap .. .. .	8,969	7,733	1,565	2,441	4,962	5,042
Tunisia—						
Scrap .. .. .	5,180	21,489	18,922	12,582	16,706	16,974
Mexico—						
Ferro-alloys .. .. .	3,792	—	—	—	1,669	1,696
United States—						
Pig-iron .. .. .	10,823	6,653	9,769	39,251	276,557	280,995
Spiegeleisen .. .. .	n.a.	n.a.	n.a.	n.a.	778	790
Powders and sponge .. .. .	5,020	7,178	6,869	12,079	15,800	16,054
Ferro-phosphorus .. .. .	56,198	20,447	32,775	33,349	29,560	30,034
Ferro-manganese .. .. .	487	1,662	3,312	1,571	19,416	19,728
Ferro-chrome .. .. .	6,828	12,012	24,221	21,940	25,332	25,739
Ferro-molybdenum .. .. .	982	684	385	650	900	914
Ferro-vanadium .. .. .	430	314	247	575	1,923	1,954
Ferro-silicon .. .. .	5,189	10,512	16,404	5,792	39,906	40,546
Other ferro-alloys .. .. .	6,519	7,122	10,078	30,408	17,825	18,111
Steel ingots, slabs, blooms, billets and sheet bars .. .. .	304,610	275,337	496,580	1,624,223	2,778,483	2,823,069
Scrap (a) .. .. .	5,230,523	6,816,662	5,867,815	8,192,801	9,254,306	9,402,810
Argentina—						
Ingots, blooms, billets ..	11,941	3,823	n.a.	n.a.	n.a.	n.a.
Brazil—						
Pig-iron .. .. .	1,968	259,564	65,531	49,084	163,223	165,842
Ferro-manganese .. .. .	764	305	79	148	4,498	4,570
Other ferro-alloys .. .. .	1,282	2,439	1,536	4,857	8,678	8,817
Chile—						
Ferro-manganese .. .. .	3,600	1,436	497	n.a.	n.a.	n.a.
Formosa—						
Pig-iron .. .. .	9,551	4,168	n.a.	n.a.	1,083	1,100
Ferro-manganese .. .. .	1,487	62	15	295	1,092	1,110
Ferro-silicon .. .. .		305	325	108	4,366	4,436
Israel—						
Scrap .. .. .	351	952	1,245	1,949	2,095	2,129
Japan—						
Pig-iron .. .. .	20,503	5,668	676	718	47	48
Ferro-chrome .. .. .	21,904	6,228	5,515	3,046	1,932	1,963
Ferro-manganese .. .. .	14,808	4,736	7,043	11,149	8,227	8,359
Ferro-silicon .. .. .	1,341	2,350	1,480	2,796	1,316	1,337
Ferro-silico-manganese ..	589	343	1,275	1,231	1,207	1,226
Other ferro-alloys .. .. .	1,956	1,022	3,788	4,907	3,101	3,151
Ingots, blooms, billets ..	161,881	49,853	49,582	348,182	460,215	467,600
Scrap .. .. .	2,767	4,424	42,982	79,099	81,496	82,804

(a) Including tin-plate and terne-plate scrap.

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Lebanon—						
Scrap .. .. .	4,356	30,032	25,756	24,087	61,226	62,208
Southern Yemen						
Scrap .. .. .	<i>n.a.</i>	507	333	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Scrap .. .. .	202	—	—	87	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Old and scrap .. .. .	365	1,838	883	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-chrome .. .. .	7,251	5,123	9,678	7,096	<i>n.a.</i>	<i>n.a.</i>



IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
<b>Pig-iron—</b>						
Forge and foundry ..	71,738	28,292	28,975	10,757	7,523	7,644
Hematite .. ..	232,514	197,735	151,907	122,547	53,601	54,461
Basic .. ..	78,853	35,971	38,790	23,132	16,155	16,414
Other .. ..	1,922	1,948	2,567	12,080	18,999	19,304
Sponge-iron .. ..	9,325	8,686	11,053	13,160	12,554	12,755
Spiegeleisen .. ..	49	—	—	—	—	—
Ferro-manganese ..	75,849	73,324	66,381	94,366	74,714	75,913
Ferro-silicon .. ..	98,290	94,732	110,756	107,051	122,857	124,829
Ferro-silicon-chrome ..	4,133	5,998	4,299	7,773	8,387	8,522
Ferro-chrome .. ..	50,065	44,627	58,464	65,338	69,002	70,109
Ferro-vanadium .. ..	81	141	482	788	1,315	1,336
Silico-manganese ..	27,847	24,390	26,632	30,147	28,038	28,488
Other ferro-alloys ..	5,662	7,365	8,846	17,919	22,083	22,437
Iron and steel ingots, etc.	32,697	113,298	88,925	424,119	194,169	197,285
<b>Blooms, billets, slabs—</b>						
Iron .. ..	68,960	166,220	376,329	576,307	814,485	827,557
Steel .. ..						
Old and scrap (a) ..	5,261	3,154	3,118	288,580	260,802	264,988
<b>Malta—</b>						
Ingots, etc. .. ..	79	10	5	2	12	12
<b>Ghana—</b>						
Pig-iron .. ..	1,213	394	1,236	257	793	805
Ferro-manganese ..	4	45	75	81	131	133
Ingots, blooms, etc. ..	160	315	83	404	175	178
<b>Kenya—</b>						
Pig-iron and Ferro-alloys	1,499	1,340	946	568	771	783
Ingots, blooms, etc. ..	27	148	266	16	6,837	6,947
<b>Mauritius—</b>						
Pig-iron, ingots, etc. ..	22	53	1,076	747	4,172	4,239
<b>Tanzania—</b>						
Pig-iron and Ferro-alloys	1,433	1,607	998	1,336	1,477	1,501
Ingots, blooms, etc. ..	—	202	1	—	1	1
<b>Uganda—</b>						
Pig-iron and Ferro-alloys	571	567	543	521	567	576
Ingots, blooms, etc. ..	—	492	1,568	607	44	45
<b>Zambia—</b>						
Pig-iron .. ..	5,084	2,311	1,234	2,745	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. ..	28	478	354	962	<i>n.a.</i>	<i>n.a.</i>
Ingots .. ..	123	95	142	11	<i>n.a.</i>	<i>n.a.</i>
<b>Canada—</b>						
Pig-iron .. ..	28,979	25,663	32,837	20,486	86	87
Sponge iron .. ..	1,753	1,771	1,918	2,517	2,378	2,416
Ferro-manganese and spiegeleisen .. ..	43,855	14,325	24,947	21,896	17,608	17,891
Ferro-chrome .. ..	11,193	19,411	13,433	22,431	20,485	20,814
Ferro-silicon .. ..	5,247	5,182	8,764	8,080	9,326	9,476
Ferro-tungsten .. ..	86	86	53	94	89	91
Ferro-vanadium .. ..	427	346	237	349	168	171
Silico-manganese and silico-spiegel .. ..	1,724	3,752	1,200	4,071	960	975
Other ferro-alloys ..	2,029	3,168	4,020	3,999	6,554	6,659
Ingots, blooms, billets ..	33,816	29,190	8,646	268,890	223,662	227,251
Scrap .. ..	640,819	503,276	572,507	635,581	738,815	750,671
<b>Jamaica—</b>						
Pig-iron .. ..	350	429	362	177	<i>n.a.</i>	<i>n.a.</i>

(a) Excluding ships intended for breaking up as follows (gross tonnage): 1966—*n.a.*; 1967—1,048; 1968—8,342; 1969—17,014; 1970—9,655 (9,810 tonnes).

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
Trinidad and Tobago—						
Pig-iron .. .. .	20	28	8	12	135	137
Ingots, etc. .. .. .	591	595	990	1,600	1,266	1,286
Guyana—						
Pig-iron, ingots, etc. ..	715	853	26	195	328	333
Ceylon—						
Pig-iron .. .. .	1,384	997	2,016	342	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms, billets etc. .. .. .	6,963	5,822	3,026	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Cyprus—						
Pig-iron .. .. .	255	355	372	531	297	302
Ingots, etc. .. .. .	356	388	1,267	31	56	57
Hong Kong—						
Pig-iron .. .. .	12,101	2,810	8,074	1,043	7,338	7,456
Ingots, blooms, billets ..	10,542	25,961	2,177	24,521	22,717	23,082
Old and scrap .. .. .	35,915	47,389	61,746	24,005	85,468	86,840
Tinplate scrap .. .. .	16,806	55	560	(a) 178	49	50
India (b)—						
Pig-iron .. .. .	1,839	315	320	3	—	—
Ingots, blooms, billets ..	23,929	20,759	20,812	11,006	23,895	24,279
Ferro-chrome .. .. .	519	1,185	459	1,411	13	13
Ferro-manganese .. .. .	539	317	114	34	—	—
Ferro-silicon .. .. .	57	89	51	24	76	77
Other ferro-alloys .. .. .	675	1,339	885	468	875	889
Old and scrap .. .. .	7,008	10,444	11,373	10,490	7,311	7,428
Malaysia (West)—						
Pig-iron .. .. .	7,805	5,602	3,035	10	12	12
Ingots, slabs, etc. .. .. .	215	11,906	17,901	161	7,761	7,886
Scrap .. .. .	4,268	5,593	219	1,110	82	83
Sabah—						
Ingots, etc. .. .. .	215	116	93	85	31	31
Singapore—						
Pig-iron .. .. .	10,445	20,512	19,962	5,619	7,255	7,371
Ferro-alloys .. .. .	606	1,552	791	928	1,144	1,162
Ingots, blooms, etc. .. .. .	4,945	22,449	27,813	32,048	31,854	32,365
Scrap .. .. .	24,005	35,260	24,298	31,109	32,733	33,258
Australia—						
Ferro-manganese .. .. .	7,832	4,955	10,482	6,352	7,691	7,814
Ferro-chrome .. .. .	2,420	3,430	3,487	5,877	12,879	13,086
Ferro-molybdenum .. .. .	366	131	163	131	277	281
Ferro-silicon .. .. .	7,500	9,291	6,227	7,600	13,388	13,603
Other ferro-alloys .. .. .	1,889	5,684	3,059	2,913	5,860	5,954
Ingots and billets, etc.(c)	187	79	179	274	328	333
Scrap (c) .. .. .	(a) 8	(a) 8	112	136	1,531	1,548
New Zealand (c)—						
Pig-iron .. .. .	7,142	6,794	5,612	6,449	11,467	11,651
Ferro-manganese .. .. .	840	742	429	1,131	<i>n.a.</i>	<i>n.a.</i>
Other ferro-alloys .. .. .	576	622	360	550	<i>n.a.</i>	<i>n.a.</i>
Billets and blooms .. .. .	240	41	44	1,176	123	125
Solomon Islands—						
Billets and blooms .. .. .	1,094	806	1,098	942	1,172	1,191
Irish Republic—						
Pig-iron and sponge iron .. .. .	19,998	27,490	21,188	21,713	17,938	18,226
Ferro-alloys .. .. .	884	646	1,351	585	1,762	1,790
Ingots, blooms, billets, etc. .. .. .	10,503	1,703	8,497	5,768	6,410	6,513

(a) Excess of re-exports.

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
Albania—						
Pig-iron .. ..	r 4,290	r 4,262	n.a.	n.a.	n.a.	n.a.
Austria—						
Pig-iron .. ..	151,170	94,954	108,074	98,065	81,573	82,882
Spiegeleisen .. ..	2,485	1,765	2,650	2,768	614	624
Ferro-manganese .. ..	12,095	11,291	13,842	19,271	17,297	17,575
Ferro-silicon .. ..	9,130	9,400	11,022	13,937	14,615	14,850
Other ferro-alloys .. ..	25,186	20,262	24,394	33,026	29,919	30,399
Ingots and blooms .. ..	47,894	88,626	153,886	57,580	72,580	73,745
Scrap .. ..	53,719	12,366	60,443	94,701	78,090	79,343
Belgium-Luxemburg						
E.U.—						
Pig-iron .. ..	206,274	167,748	193,034	210,513	229,913	233,603
Sponge-iron .. ..	1,348	3,152	1,758	1,386	236	240
Spiegeleisen .. ..	12,672	14,749	19,382	21,076	17,789	18,075
Ferro-chrome, etc. .. ..	6,571	6,721	7,077	8,727	14,751	14,988
Ferro-manganese .. ..	67,754	73,062	74,031	83,434	85,602	86,976
Ferro-silico-manganese .. ..	4,643	5,924	10,066	11,631	9,903	10,062
Ferro-molybdenum .. ..	100	83	85	122	155	158
Ferro-silicon .. ..	20,574	17,631	26,159	30,771	37,095	37,690
Ferro-tungsten .. ..	22	33	10	25	40	41
Other ferro-alloys .. ..	2,033	2,273	3,222	3,044	3,193	3,243
Ingots .. ..	182,553	219,193	110,287	150,003	137,745	139,956
Blooms, billets, etc. .. ..	99,827	150,920	149,705	169,048	277,400	281,852
Old and scrap .. ..	190,389	193,770	278,861	568,953	823,136	836,345
Bulgaria—						
Pig-iron .. ..	142,710	157,781	245,029	n.a.	n.a.	n.a.
Czechoslovakia—						
Pig iron .. ..	106,000	200,000	413,000	694,000	767,000	779,000
Denmark—						
Pig-iron .. ..	92,401	30,555	20,754	22,715	30,007	30,489
Ferro-chrome .. ..	480	401	593	798	710	721
Ferro-manganese, etc. .. ..	4,159	2,197	5,704	9,988	7,774	7,899
Ferro-silicon .. ..	4,275	3,967	5,694	4,145	5,231	5,231
Other ferro-alloys .. ..	104	126	122	216	1,051	1,068
Ingots, blooms, billets .. ..	47,307	91,470	153,782	148,596	169,432	172,151
Old and scrap .. ..	583	593	1,018	41,423	28,630	29,090
Finland—						
Pig-iron .. ..	2,730	720	714	1,535	945	960
Billets .. ..	65,167	50,354	20,023	34,896	59,239	60,190
Ferro-manganese .. ..	1,214	2,153	3,194	3,623	5,931	6,026
Other ferro-alloys .. ..	8,111	8,588	6,836	16,910	18,015	18,304
Old and scrap .. ..	120,548	108,873	66,789	91,463	133,955	136,105
France—						
Pig-iron—hematite .. ..	120,169	132,084	205,635	193,987	120,607	122,542
do. other .. ..	25,280	24,205	23,732	27,761	10,270	10,435
Sponge-iron .. ..	1,629	7,381	1,823	1,584	3,146	3,197
Spiegeleisen .. ..	2,262	4,303	2,395	3,329	4,173	4,240
Ferro-manganese .. ..	16,421	21,546	20,128	24,786	27,288	27,726
Ferro-silicon .. ..	834	687	1,415	2,695	2,024	2,057
Ferro-chrome .. ..	356	3,061	4,311	10,165	10,077	10,239
Ferro-nickel .. ..	28,202	44,100	49,470	65,616	89,180	90,611
Other ferro-alloys .. ..	2,755	1,965	3,037	2,378	2,479	2,519
Ingots .. ..	132,133	129,311	81,119	219,244	251,896	255,938
Blooms, billets, etc. .. ..	449,057	481,273	463,191	552,299	474,366	481,978
Old and scrap .. ..	502,989	456,607	366,314	456,922	411,497	418,101
Germany (Federal)—						
Pig-iron .. ..	171,332	136,749	195,534	163,176	163,108	165,726
Spiegeleisen .. ..	10,013	3,331	3,159	766	206	209
Ferro-alloys .. ..	260,716	250,946	366,948	421,382	470,013	477,555
Rough blooms, ingots, bars, etc. .. ..	425,374	342,746	646,436	845,431	1,144,500	1,162,866
Old and scrap .. ..	659,187	1,086,015	1,617,604	1,188,902	1,405,694	1,428,251
Germany (East)—						
Pig-iron .. ..	638,800	708,600	n.a.	624,600	736,500	748,300

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Greece—						
Pig-iron .. ..	26,960	27,310	32,464	25,706	22,041	22,395
Spiegeleisen .. ..	<i>n.a.</i>	572	80	158	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. ..	1,920	1,866	1,923	2,038	4,610	4,684
Ingots, blooms, slabs, etc.	79,488	48,216	124,233	57,338	87,949	89,360
Old and scrap .. ..	635	732	10,807	10,111	<i>n.a.</i>	<i>n.a.</i>
Hungary—						
Pig iron .. ..	129,000	160,426	192,800	202,544	189,315	192,353
Ferro-chrome .. ..	10,254	9,303	8,108	6,837	8,122	8,252
Ferro-manganese .. ..	14,634	12,233	25,454	23,917	28,840	29,303
Ferro-silicon .. ..	2,393	2,371	2,406	2,947	2,827	2,872
Other ferro-alloys .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,409	4,440	4,511
Ingots .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	207,420	210,852	214,236
Italy—						
Pig-iron .. ..	799,585	1,030,248	830,254	746,953	902,618	917,102
Spiegeleisen .. ..	13,716	24,861	29,025	31,537	13,000	13,209
Ferro-chrome .. ..	24,291	23,336	19,607	25,525	30,279	30,765
Ferro-manganese .. ..	76,652	85,550	86,054	111,672	109,298	111,052
Ferro-molybdenum .. ..	722	797	625	870	858	872
Ferro-silicon .. ..	13,956	19,979	25,477	30,343	24,459	24,852
Ferro-silico-manganese	6,710	12,005	15,638	21,234	17,810	18,096
Ferro-titanium .. ..	607	502	626	987	1,481	1,505
Ferro-tungsten .. ..	178	165	596	367	215	219
Ferro-vanadium .. ..	334	616	254	352	442	449
Other ferro-alloys .. ..	5,825	6,664	4,023	15,414	19,385	19,696
Ingots .. ..	} 281,136	460,633	368,489	612,192	848,855	862,477
Blooms, billets, etc.						
Old and scrap .. ..						
	4,035,596	4,891,020	5,014,093	5,052,207	5,062,367	5,143,603
Netherlands—						
Pig-iron .. ..	70,154	19,408	23,184	37,757	121,190	123,135
Sponge iron .. ..	2,928	2,456	2,856	3,725	4,050	4,115
Spiegeleisen .. ..	915	317	201	373	142	144
Ferro-manganese .. ..	17,236	23,255	24,020	33,614	38,736	39,358
Ferro-chrome .. ..	2,551	1,106	2,294	2,286	2,607	2,649
Ferro-silicon .. ..	6,900	6,460	7,824	10,228	7,465	7,585
Ferro-silico-manganese	323	899	1,147	1,155	2,372	2,410
Ferro-molybdenum .. ..	87	55	34	61	38	39
Other ferro-alloys .. ..	1,990	979	708	1,772	982	998
Ingots, blooms, billets	214,439	420,298	318,033	264,132	276,125	280,556
Old and scrap .. ..	50,250	161,518	150,761	311,340	293,656	298,368
Norway—						
Pig-iron .. ..	17,505	15,400	15,991	12,432	10,446	10,614
Ferro-alloys .. ..	486	2,461	1,651	10,689	5,343	5,429
Ingots, blooms, billets	68,898	55,722	62,965	71,222	90,203	91,651
Old and scrap .. ..	38,486	23,642	12,750	20,522	45,384	46,112
Poland—						
Pig-iron .. ..	763,184	683,136	928,826	1,192,515	1,461,384	1,484,835
Ferro-alloys .. ..	3,855	5,836	7,838	10,242	19,262	19,571
Scrap .. ..	3,787	2,999	3,732	4,381	5,658	5,749
Portugal—						
Iron and steel ingots .. ..	3,228	39	800	708	94	95
Old and scrap .. ..	4,246	4,501	3,675	5,020	9,487	9,639
Roumania—						
Ferro-alloys .. ..	50,600	67,418	74,800	87,600	100,400	102,000
Spain—						
Pig-iron .. ..	14,167	13,474	12,744	11,865	65,343	66,392
Ferro-manganese .. ..	1,324	949	950	2,178	967	983
Other ferro-alloys .. ..	6,099	4,161	7,450	13,776	14,913	15,152
Ingots and blooms .. ..	597,585	677,387	531,175	537,280	388,879	395,119
Old and scrap .. ..	376,939	345,758	587,595	1,217,376	1,342,327	1,363,868

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Pig-iron .. ..	418,530	230,830	273,640	257,485	349,245	354,849
Sponge iron .. ..	49	—	—	—	n.a.	n.a.
Spiegeleisen .. ..	—	108	—	—	—	—
Ferro-manganese .. ..	22,727	20,834	30,458	26,291	31,374	31,878
Ferro-chrome .. ..	16,889	13,744	18,643	30,108	20,811	21,145
Ferro-silico .. ..	6,989	8,056	8,721	14,119	18,678	18,978
Ferro-silico-manganese	8,567	7,382	11,847	10,278	10,357	10,523
Ferro-tungsten .. ..	709	380	272	655	652	663
Other ferro-alloys .. ..	15,897	10,910	14,406	16,389	19,623	19,938
Blooms, billets, etc. .. ..	11,622	9,796	14,126	56,110	37,067	37,662
Old and scrap .. ..	215,562	92,963	77,402	419,520	473,313	480,908
Switzerland—						
Pig-iron .. ..	59,698	51,881	56,903	63,249	83,794	85,139
Ferro-alloys .. ..	16,266	10,930	17,690	16,879	18,180	18,472
Ingots, blooms, billets ..	r 160,299	r 147,224	r 170,412	177,765	265,412	269,671
Old, filings and scrap	52,107	22,436	26,491	21,370	50,358	51,166
U.S.S.R.—						
Pig-iron .. ..	136,300	151,568	62,399	47,000	68,200	69,300
Ferro-alloys .. ..	7,200	7,086	8,464	7,000	5,800	5,900
Yugoslavia—						
Pig-iron .. ..	240,579	138,700	141,414	208,833	163,297	165,918
Ferro-alloys .. ..	1,559	1,597	4,378	3,417	3,670	3,729
Ingots, blooms, billets ..	44,406	84,016	107,819	140,565	98,554	100,136
Scrap .. ..	118,487	32,427	105,159	138,136	144,410	146,727
Egypt—						
Pig-iron and spiegeleisen	73,294	24,811	84,442	51,942	41,541	42,208
Ferro-alloys .. ..	4,461	13,730	9,862	6,180	3,430	3,485
Ingots, billets, etc. .. ..	104,442	89,236	38,022	29,829	n.a.	n.a.
Scrap .. ..	139,465	51,055	34,904	31,952	95,195	96,723
Morocco—						
Pig-iron .. ..	1,034	923	1,417	940	2,138	2,172
Ferro-alloys .. ..	240	193	179	231	n.a.	n.a.
Scrap, etc. .. ..	81	5	—	60	1	1
South Africa—						
Pig-iron (a) .. ..	10	87,348	144,991	32	3,502	3,558
Ferro-silicon .. ..	1,393	1,560	3,509	1,566	1,755	1,783
Ingots, blooms, etc. .. ..	19,757	36,053	80,923	15,157	111,587	113,378
Other ferro-alloys .. ..	308	335	3,895	4,047	4,691	4,766
Sudan—						
Crude iron and steel .. ..	167	39	12	87	20	20
Tunisia—						
Pig-iron .. ..	72	104	190	791	58	59
Old and scrap .. ..	36	64	122	543	504	512
Honduras—						
Ingots, blooms, etc. .. ..	5,884	10,636	7,279	10,804	12,757	12,962
Mexico—						
Pig-iron .. ..	34,480	9,787	3,520	1,672	1,086	1,103
Ferro-manganese .. ..	308	423	410	582	894	908
Ferro-silicon .. ..	69	1,555	325	353	423	430
Ferro-chrome .. ..	319	379	491	816	1,514	1,538
Ferro-molybdenum .. ..	154	18	39	72	64	65
Ferro-vanadium .. ..	262	156	328	192	199	202
Other ferro-alloys .. ..	169	636	266	351	829	842
Ingots, blooms, billets ..	58,273	113,993	137,651	86,526	70,706	71,841
Scrap .. ..	709,296	686,227	451,042	480,541	705,409	716,729
Tin-plate scrap .. ..						
Salvador—						
Ingots, blooms, billets	19,457	24,845	35,749	29,716	19,321	19,631
Scrap .. ..	706	1,003	1,462	123	237	241
United States—						
Pig-iron .. ..	1,059,589	540,388	701,695	363,007	222,537	226,108
Ferro-chrome .. ..	59,151	34,350	53,406	37,040	23,165	23,537

(a) Including cast iron.

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>United States (cont.)—</b>						
Ferro-manganese ..	173,717	149,596	142,043	209,429	202,658	205,911
Ferro-silicon ..	11,726	13,695	9,484	15,127	8,983	9,127
Ferro-titanium ..	27	137	178	492	65	66
Ferro-tungsten ..	169	151	—	—	2	2
Sponge iron ..	46,558	4,689	7,246	7,323	13,555	13,773
Bar-iron, slabs, blooms, etc. ..	200,300	131,845	183,551	131,020	152,746	155,196
Steel ingots, blooms, etc. ..						
Scrap ..	348,397	182,791	227,737	256,371	249,000	253,000
Tin-plate scrap ..	14,687	12,078	15,827	21,293	20,000	20,000
<b>Argentina—</b>						
Pig-iron ..	105,692	94,593	201,846	131,772	96,489	98,037
Ferro-manganese ..	474	298	624	398	503	511
Ferro-silicon ..	878	207	131	31	33	34
Ingots ..	1,336	146,505	4,909	208	91	92
Blooms and billets ..	302,176	349,209	323,542	737,068	779,923	792,438
Old and scrap ..	24,980	29,413	182	195	5,283	5,368
<b>Brazil—</b>						
Ferro-manganese ..	319	479	142	595	98	100
Ferro-silicon ..	538	353	186	488	1,821	1,850
Ferro-chrome ..	1,174	777	1,573	1,433	1,639	1,665
Other ferro-alloys ..	677	188	518	913	1,346	1,368
<b>Chile—</b>						
Pig-iron (b) ..	20,300	880	2,720	n.a.	n.a.	n.a.
Ferro-alloys ..	300	1,800	300	n.a.	n.a.	n.a.
<b>Colombia—</b>						
Pig-iron ..	1,302	1,327	1,569	n.a.	n.a.	n.a.
Ingots, etc. ..	35,046	n.a.	984	n.a.	n.a.	n.a.
Blooms, billets, etc. ..						
Ferro-alloys ..	3,322	2,628	5,552	n.a.	n.a.	n.a.
<b>Peru—</b>						
Pig-iron ..	n.a.	214	n.a.	n.a.	n.a.	n.a.
Ferro-alloys ..	1,454	1,218	1,400	910	n.a.	n.a.
<b>Uruguay—</b>						
Ingots etc. ..	35,422	23,246	53,449	40,669	42,633	43,317
Ferro-alloys ..	154	195	199	277	234	238
<b>Venezuela—</b>						
Pig-iron ..	161	62	89	105	n.a.	n.a.
Ferro-alloys ..	5,850	3,527	8,249	7,446	n.a.	n.a.
Scrap ..	4,008	4,635	30,603	47,098	n.a.	n.a.
Ingots, blooms and billets ..	363	5,222	6,608	6,445	n.a.	n.a.
<b>Formosa—</b>						
Blooms, billets, etc. ..	14,298	48,814	20,696	38,208	30,787	31,281
Ferro-alloys ..	329	253	782	776	550	559
Old and scrap ..	268,138	200,221	196,061	213,626	205,915	209,219
<b>Iran (a)—</b>						
Pig-iron ..	9,210	22,305	25,104	23,366	7,492	7,612
Old and scrap ..	4,307	5,088	5,935	3,782	7,559	7,680
<b>Israel—</b>						
Pig-iron ..	9,918	3,994	16,600	13,768	18,963	19,267
Spiegeleisen ..	n.a.	n.a.	n.a.	246	292	297
Ferro-manganese ..	28	417	472	781	504	512
Other ferro-alloys ..	447	129	865	530	826	839
<b>Japan—</b>						
Pig-iron ..	2,814,460	6,347,989	4,385,734	3,319,030	2,809,337	2,854,419
Ferro-manganese ..	—	9,243	2,355	24,171	47,115	47,871
Ferro-silicon ..	1,578	31,094	43,965	30,503	22,000	22,353
Ferro-chromium ..	197	3,589	3,431	9,545	25,141	25,545

(a) Years ended March 20 of year following that stated.

(b) Including Spiegeleisen.

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan ( <i>cont.</i> )—						
Ferro-Nickel .. ..	670	2,782	1,129	308	4,650	4,725
Ferro-molybdenum ..	64	489	108	124	504	512
Other ferro-alloys ..	538	22,309	10,803	18,884	47,151	47,908
Ingots, blooms, billets ..	4,452	278,554	95,256	103,763	78,558	79,819
Old and scrap .. ..	3,478,335	6,602,009	3,877,196	4,801,132	5,701,056	5,792,541
Jordan—						
Ingots, blooms, billets ..	64,613	66,981	40,086	81,869	55,526	56,417
Korea (South)—						
Pig iron .. ..	50,418	45,682	77,753	57,498	7,259	7,375
Ferro-alloys .. ..	170	10,424	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Scrap .. ..	192,534	308,129	384,753	689,809	826,672	839,938
Ingots, blooms, etc. ..	56,965	41,642	<i>n.a.</i>	310,786	319,979	325,114
Lebanon—						
Pig-iron .. ..	10,207	5,110	11,575	10,522	1,354	1,376
Ferro-alloys .. ..	69	18	130	14	11	11
Old and scrap .. ..	689	2,133	4,823	3,358	33,795	34,337
Ingots, blooms, etc. ..	72,311	85,049	98,475	100,192	108,484	110,225
Philippine Republic—						
Pig-iron .. ..	14,133	12,463	18,362	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. ..		1,959	2,537	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms, billets ..		<i>n.a.</i>	181,032	244,411	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Pig-iron .. ..	1,308	1,038	1,412	2,095	1,505	1,529
Scrap .. ..	931	312	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Pig-iron .. ..	694	950	91	61	705	716
Ferro-alloys .. ..	1,829	1,706	3,432	3,443	3,823	3,885
Turkey—						
Pig-iron .. ..	21,453	20,977	25,670	31,444	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. ..	10,376	7,615	8,634	13,653	<i>n.a.</i>	<i>n.a.</i>
Blooms, billets, etc. ..	175,036	124,463	164,621	162,323	<i>n.a.</i>	<i>n.a.</i>
Scrap .. ..	31,476	38,411	63,357	38,304	<i>n.a.</i>	<i>n.a.</i>

**LEAD**  
**PRODUCTION OF LEAD ORE**  
(Metal content)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	2,900	3,200	3,200	3,000	4,000	4,000
Nigeria (a) .. ..	690	600	—	—	<i>n.a.</i>	<i>n.a.</i>
Zambia (b) .. ..	18,464	19,100	23,745	22,644	26,900	27,300
Canada (d) .. ..	267,520	283,984	303,728	283,515	342,150	347,652
India .. ..	3,675	3,932	3,510	3,248	3,819	3,880
Australia .. ..	364,898	375,779	381,250	444,899	450,141	457,366
<b>TOTAL .. ..</b>	<b>657,500</b>	<b>685,700</b>	<b>722,300</b>	<b>757,200</b>	<b>826,900</b>	<b>840,200</b>
Irish Republic .. ..	37,481	58,704	59,722	57,760	61,880	62,873
<b>OTHER COUNTRIES</b>						
Austria .. ..	5,595	5,549	6,673	6,023	5,908	6,003
Bulgaria .. ..	88,000	85,000	84,800	81,200	97,000	98,500
Czechoslovakia .. ..	(e) 14,000	(e) 14,000	(e) 14,000	(e) 14,000	(g) 16,000	(g) 16,000
Finland (f) .. ..	4,560	4,711	4,453	4,481	4,925	5,005
France .. ..	26,331	26,924	26,689	29,800	28,921	29,385
Germany—						
Federal Republic ..	54,804	58,704	51,936	38,921	38,034	38,644
East (g) .. ..	10,000	11,000	10,000	10,000	10,000	10,000
Greece .. ..	8,649	8,128	8,551	8,170	9,000	9,000
Hungary .. ..	(e) 1,400	1,400	1,500	1,670	<i>n.a.</i>	<i>n.a.</i>
Italy .. ..	r 36,171	33,398	34,889	36,300	33,950	34,500
Norway .. ..	3,470	3,268	3,475	3,458	3,250	3,300
Poland .. ..	44,400	44,000	48,000	53,600	64,000	65,000
Portugal .. ..	1,688	1,569	1,895	1,774	1,533	1,558
Roumania (b) (g) ..	20,000	20,000	30,000	40,000	39,000	40,000
Spain .. ..	62,431	62,685	72,876	70,616	63,910	64,936
Sweden .. ..	69,766	72,456	70,894	78,696	106,491	108,200
U.S.S.R. (b) (g) ..	410,000	400,000	400,000	400,000	410,000	410,000
Yugoslavia .. ..	100,980	106,371	110,002	116,179	124,692	126,693
Algeria .. ..	4,872	3,523	r 5,258	7,821	6,420	6,523
Congo (Brazza) .. ..	(e) 3,500	(e) 3,500	(g) 3,500	3,500	<i>n.a.</i>	<i>n.a.</i>
Morocco .. ..	78,360	76,466	78,800	75,452	77,351	78,592
South Africa .. ..	—	18	—	—	—	—
South West Africa ..	85,000	(g) 70,000	(g) 60,000	(g) 75,000	(g) 69,400	(g) 70,500
Tunisia .. ..	13,965	12,665	14,254	22,467	22,177	22,533
Guatemala (f) .. ..	887	1,142	464	280	500	500
Honduras .. ..	10,899	11,500	12,967	13,839	15,881	16,136
Mexico (f) .. ..	179,195	165,048	171,416	168,193	173,800	176,600
United States (f) ..	292,293	282,974	320,675	448,100	510,506	518,674
Argentina .. ..	29,017	31,789	26,130	34,362	37,000	38,000
Bolivia (c) .. ..	19,826	19,636	21,600	24,600	25,400	25,800
Brazil (e) .. ..	22,000	23,088	20,850	21,800	(g) 22,000	(g) 22,000
Chile .. ..	1,000	400	970	819	790	803
Colombia .. ..	588	1,068	728	403	576	585
Ecuador .. ..	68	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Excluding native production.

(b) Smelter.

(c) Exports of ore (metal content) and metal.

(d) Lead in base bullion plus recoverable lead in ores exported.

(e) United States Bureau of Mines' estimate.

(f) Amount estimated as recoverable.

(g) Estimated.



PRODUCTION OF LEAD ORE (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Peru (a) .. ..	158,970	157,193	152,083	152,102	153,000	155,000
Burma .. ..	18,200	14,800	16,964	9,566	9,362	9,512
China (c) .. ..	100,000	90,000	100,000	100,000	100,000	100,000
Iran (c) (d) .. ..	14,448	14,554	14,700	12,600	(b) 20,000	(b) 20,000
Japan .. ..	62,099	62,473	61,900	62,500	63,400	64,400
Korea (South) .. ..	6,800	8,700	9,178	9,450	10,385	10,552
Korea (North) (b) .. ..	60,000	65,000	70,000	70,000	69,000	70,000
Philippine Republic .. ..	90	88	83	66	<i>n.a.</i>	<i>n.a.</i>
Thailand .. ..	6,600	3,500	2,900	1,665	1,195	1,214
Turkey .. ..	921	1,144	4,814	1,411	2,880	2,920
<b>TOTAL .. ..</b>	<b>2,100,000</b>	<b>2,200,000</b>	<b>2,200,000</b>	<b>2,300,000</b>	<b>2,500,000</b>	<b>2,500,000</b>
<b>WORLD'S TOTAL .. ..</b>	<b>2,800,000</b>	<b>2,900,000</b>	<b>3,000,000</b>	<b>3,100,000</b>	<b>3,300,000</b>	<b>3,300,000</b>

(a) Amount estimated as recoverable.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

(d) Years ended March 20 of year following that stated.

METAL PRODUCTION OF LEAD

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (h) ..	15,890	26,400	31,386	38,439	43,077	43,768
Zambia .. .. .	18,464	19,100	23,745	22,644	26,900	27,300
Canada .. .. .	165,063	172,530	180,446	167,092	182,705	185,638
India .. .. .	2,599	2,435	1,347	1,927	1,833	1,862
Australia (c) ..	267,423	292,030	r 291,366	338,908	346,894	352,462
<b>TOTAL .. .. .</b>	<b>469,243</b>	<b>511,123</b>	<b>528,794</b>	<b>568,840</b>	<b>601,380</b>	<b>611,030</b>
<b>OTHER COUNTRIES</b>						
Austria (b) .. ..	9,509	10,544	11,156	11,600	13,300	13,500
Belgium (b) .. ..	91,196	106,097	108,324	108,797	104,349	106,024
Bulgaria .. .. .	91,380	95,000	91,200	93,000	97,000	98,600
Czechoslovakia ..	r 16,108	17,249	17,591	18,036	17,337	17,615
France .. .. .	106,922	112,209	98,356	106,200	118,000	119,900
Germany—Federal	107,894	134,152	118,123	123,821	(a) 137,000	(c) 137,000
do. East (a) (b)	25,000	25,000	25,000	25,000	25,000	25,000
Greece .. .. .	5,314	6,400	8,220	11,800	14,038	14,263
Italy .. .. .	52,709	59,544	56,645	61,340	53,431	54,288
Norway .. .. .	n.a.	1,400	1,300	1,200	1,000	1,000
Poland .. .. .	42,800	43,600	41,300	49,900	53,600	54,500
Portugal .. .. .	1,041	1,056	1,208	1,111	563	572
Roumania (a) ..	20,000	40,000	40,000	40,000	39,000	40,000
Spain .. .. .	64,860	51,730	63,112	80,410	67,597	68,682
Sweden .. .. .	43,010	41,000	43,000	41,000	39,000	40,000
U.S.S.R. (a) .. .	410,000	410,000	410,000	410,000	520,000	530,000
Yugoslavia .. ..	110,155	100,281	106,998	121,561	110,459	112,232
Morocco .. .. .	18,479	21,021	23,784	26,408	24,500	24,900
South West Africa	74,087	69,300	54,600	68,400	66,800	67,900
Tunisia .. .. .	14,000	14,000	14,000	14,000	22,100	22,500
Guatemala .. ..	212	70	196	221	n.a.	n.a.
Mexico .. .. .	178,238	165,712	177,420	173,075	177,500	180,300
United States (e) ..	393,513	339,191	417,241	558,000	607,400	617,100
Argentina .. .. .	21,652	21,652	24,643	21,652	21,308	21,650
Bolivia (f) .. ..	11	13	—	—	n.a.	n.a.
Brazil .. .. .	9,781	4,085	n.a.	n.a.	n.a.	n.a.
Peru .. .. .	87,360	80,523	r 85,056	76,692	71,100	72,200
Burma .. .. .	(d) 14,000	(d) 13,000	(d) 8,000	(d) 10,000	(a) 10,000	(a) 10,000
China (a) (b) .. .	100,000	90,000	100,000	100,000	100,000	100,000
Japan .. .. .	116,710	147,604	161,974	183,668	206,000	209,000
Korea (North) (a)	50,000	55,000	55,000	55,000	54,000	55,000
Turkey .. .. .	500	500	1,600	1,200	3,400	3,500
<b>TOTAL .. .. .</b>	<b>2,300,000</b>	<b>2,200,000</b>	<b>2,400,000</b>	<b>2,600,000</b>	<b>2,800,000</b>	<b>2,800,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,700,000</b>	<b>2,700,000</b>	<b>2,900,000</b>	<b>3,200,000</b>	<b>3,400,000</b>	<b>3,400,000</b>

(a) Estimated.

(b) Including secondary metal.

(c) Including lead in base bullion as follows:

Year	Long tons	Year	Long tons	Tonnes
1966 .. .. .	74,295	1969 .. .. .	153,134	
1967 .. .. .	101,167	1970 .. .. .	169,661	172,384
1968 .. .. .	116,133			

(d) United States Bureau of Mines' estimate.

(e) In addition the recovery of secondary lead was as follows:

Year	Long tons	Year	Long tons	Tonnes
1966 .. .. .	511,459	1969 .. .. .	509,000	
1967 .. .. .	494,439	1970 .. .. .	526,000	535,000
1968 .. .. .	491,856			

(f) Exports.

(g) Years ended March 20 of year following that stated.

(h) Source: World Bureau of Metal Statistics.

## EXPORTS OF LEAD, ETC \*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Unwrought .. ..	34,959	61,028	90,931	124,561	135,178	137,348
do. alloys .. ..	8,013	10,153	10,202	16,004	15,530	15,779
Semi-manufactures (a)	1,740	1,901	1,897	2,553	2,330	2,367
White lead .. ..	1,171	920	1,209	1,112	1,410	1,433
Red lead, etc. .. ..	4,757	5,145	5,001	6,116	7,261	7,378
<b>Nigeria—</b>						
Ore and concentrates ..	1,282	908	51	—	5	5
<b>Zambia—</b>						
Unwrought .. ..	24,265	17,141	16,096	25,482	21,735	22,084
<b>Canada—</b>						
Ore (Pb content) .. ..	100,834	112,673	128,440	125,157	148,136	150,513
Unwrought .. ..	95,061	118,143	123,912	95,616	136,447	138,637
Scrap (a) .. ..	4,005	5,387	5,115	5,636	5,127	5,209
<b>Hong Kong—</b>						
Scrap .. ..	379	892	549	603	1,588	1,613
<b>Singapore—</b>						
Semi-manufactures (a)	368	238	234	175	132	134
<b>Australia (b)—</b>						
Ores and concentrates (Pb content) .. ..	69,464	81,830	89,158	85,403	88,938	90,365
Base bullion (Pb content)	89,140	80,889	106,075	120,490	164,996	167,644
Unwrought .. ..	159,811	152,145	151,042	115,415	160,346	162,920
do. alloys .. ..	4,370	3,311	3,420	4,203	6,112	6,210
Scrap (a) .. ..	1,642	97	210	120	434	441
Semi-manufactures ..	1,248	(a) 287	(a) 634	(a) 2,575	(a) 2,586	(a) 2,627
Red and white lead, etc.	2,072	1,419	1,304	1,674	2,771	2,816
<b>Irish Republic—</b>						
Ore and concentrates ..	87,178	133,435	153,966	145,966	143,464	145,767
Scrap .. ..	796	401	318	208	258	262
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Unwrought (a) .. ..	1,950	2,690	1,568	2,422	1,833	1,863
Scrap .. ..	1	66	—	—	47	48
Red and white lead, etc.	1,522	1,310	1,404	1,147	1,404	1,427
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Ore .. ..	6,418	1,034	15	1,302	33,840	34,383
Unwrought .. ..	49,832	48,254	52,601	42,407	50,391	51,200
do. alloys .. ..	6,219	8,899	10,488	10,304	12,324	12,522
Scrap .. ..	2,228	2,226	5,209	11,882	7,640	7,763
Semi-manufactures (a)	7,986	7,164	6,676	6,288	5,508	5,596
Red and white lead, etc.	5,147	5,718	7,063	6,040	7,450	7,570
<b>Denmark—</b>						
Unwrought .. ..	2,882	2,247	2,728	2,149	1,209	1,229
do. alloys .. ..	2,762	3,341	2,921	2,316	2,523	2,564
Scrap .. ..	—	20	—	56	15	15
Semi-manufactures (a)	144	39	76	114	119	121

\*In these tables description the "unwrought" lead corresponds to item 685.1 of the Standard International Trade Classification (Revised) and comprises base bullion, pigs, unwrought bars, etc. "Semi-manufactures" corresponds to S.I.T.C.(R). 685.2 and includes foil and powder as well as wrought bars, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(b) Years ended June 30 of that stated.

## EXPORTS OF LEAD, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Finland—						
Unwrought (a) ..	1	1	82	32	158	161
France—						
Ore .. .. .	1,613	3,833	3,555	4,265	2,132	2,166
Unwrought .. ..	6,229	15,171	13,864	13,474	14,525	14,758
do. alloys .. ..	2,849	2,567	2,645	5,319	12,746	12,951
Scrap .. .. .	2,240	9,463	10,369	14,438	21,982	22,335
Semi-manufactures (a)	988	886	1,118	925	1,408	1,431
Red and white lead, etc.	7,073	7,661	8,082	9,284	8,858	9,000
Germany (Federal)—						
Ore .. .. .	3,870	5,548	5,312	7,478	1,854	1,884
Unwrought (a) ..	40,897	79,081	43,584	31,765	51,797	52,628
Scrap (a) .. ..	25,620	19,854	10,003	7,507	15,279	15,524
Semi-manufactures (a)	8,678	7,070	7,286	7,188	5,745	5,837
Red and white lead ..	7,963	9,325	8,507	9,628	8,158	8,289
Greece—						
Ore .. .. .	10,088	10,937	12,959	11,434	13,533	13,750
Italy—						
Ore .. .. .	2,860	3,403	3,245	7,409	13,158	13,369
Unwrought (a) ..	101	18	3	18	338	344
Semi-manufactures (a)	153	245	65	695	98	100
Red and white lead ..	1,678	258	1,425	552	48	49
Netherlands—						
Unwrought .. ..	7,912	6,291	6,356	3,458	6,752	6,860
do. alloys .. ..	3,516	4,914	9,990	10,912	9,139	9,286
Scrap (a) .. ..	4,599	6,545	8,024	8,483	9,240	9,388
Semi-manufactures (a)	2,006	1,981	1,594	1,311	1,502	1,526
Red and white lead ..	2,406	2,947	3,792	4,206	3,632	3,690
Norway—						
Ore .. .. .	7,293	7,006	6,317	7,186	6,374	6,476
Unwrought (a) ..	576	524	513	184	412	419
Semi-manufactures (a)	255	192	396	39	99	101
Scrap .. .. .	2,944	3,952	4,733	4,626	4,320	4,389
Poland—						
Concentrates .. ..	16,025	18,604	9,092	6,389	13,915	14,138
Portugal—						
Unwrought (a) ..	31	29	35	62	109	111
Semi-manufactures (a)	100	157	184	266	210	213
Red and white lead ..	98	99	10	13	18	18
Spain—						
Unwrought (a) ..	153	16	—	151	68	69
Semi-manufactures (a)	19	20	71	97	156	159
Sweden—						
Ore .. .. .	44,141	35,355	47,742	46,130	46,469	47,215
Unwrought .. ..	9,795	13,579	12,484	9,082	8,609	8,747
do. alloys .. ..	200	37	869	3,498	1,071	1,088
Scrap .. .. .	91	49	83	54	748	760
Semi-manufactures (a)	38	4	20	34	10	10
Red and white lead ..	1,506	1,932	2,557	1,121	1,178	1,197
Switzerland—						
Unwrought .. ..	36	19	376	117	210	213
Scrap .. .. .	5,396	5,203	5,321	8,235	7,052	7,165
Semi-manufactures ..	160	252	607	359	253	257
U.S.S.R.—						
Unwrought .. ..	86,500	85,528	89,460	96,400	90,941	92,400
Yugoslavia—						
Unwrought .. ..	51,591	45,393	47,773	65,137	55,393	56,282
do. alloys .. ..	6,587	8,189	6,502	1,062	1,138	1,156
Semi-manufactures (a)	2,309	1,525	609	1,768	707	718
Red lead .. .. .	1,012	351	657	1,306	629	639

(a) Including alloys.

## EXPORTS OF LEAD, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Algeria—						
Ore .. .. .	8,210	6,531	4,049	7,342	10,742	10,914
Congo (Brazza)—						
Ore .. .. .	—	5	—	—	—	—
Morocco—						
Ore .. .. .	90,545	85,066	86,697	74,310	74,036	75,224
Unwrought .. .. .	15,331	19,744	22,388	24,684	22,146	22,501
Scrap .. .. .	—	—	—	—	59	60
South Africa—						
Unwrought .. .. .	58,908	64,552	48,131	53,631	47,543	48,306
Semi-manufactures .. .. .	27	50	170	154	95	96
South West Africa—						
Complex concentrates (Pb content) .. .. .	20,287	n.a.	n.a.	n.a.	n.a.	n.a.
Lead-vanadium concentrates .. .. .	12,286	n.a.	n.a.	n.a.	n.a.	n.a.
Tunisia—						
Unwrought (a) .. .. .	12,797	12,036	12,442	14,501	19,097	19,403
Scrap .. .. .						
Guatemala—						
Ore .. .. .	851	198	266	652	426	433
Honduras—						
Ore and concentrates .. .. .	8,236	10	19,878	21,045	27,528	27,970
Mexico—						
Ores and concentrates .. .. .	2,454	905	r 1,284	1,281	1,554	1,579
Unwrought—						
Refined .. .. .	97,003	83,440	r 80,710	71,816	76,410	77,636
Base bullion .. .. .	14,991	11,893	12,950	10,708	9,757	9,914
Antimonial .. .. .	127	16	—	241	120	122
Semi-manufactures .. .. .	—	—	—	1,026	1,154	1,173
Red and white lead .. .. .	31,048	33,393	r 36,153	46,304	40,033	40,675
United States—						
Ore, mattes and base bullion (Pb content) .. .. .	n.a.	n.a.	7	n.a.	n.a.	n.a.
Unwrought (a) .. .. .	3,114	3,806	4,363	2,308	4,437	4,508
Scrap .. .. .	444	351	837	2,089	3,763	3,823
Semi-manufactures (a) .. .. .	1,739	2,030	3,031	2,127	2,480	2,520
Red and white lead, etc. .. .. .	2,321	1,705	1,676	1,507	1,677	1,704
Argentina—						
Ore .. .. .	215	56	623	1,701	1,165	1,184
Bolivia—						
Ore, etc. (Pb content) .. .. .	19,815	19,623	21,600	24,600	25,400	25,800
Unwrought .. .. .	11	13	—	—	n.a.	n.a.
Brazil—						
Ore .. .. .	4,921	n.a.	n.a.	3,937	n.a.	n.a.
Chile—						
Ore and concentrates .. .. .	n.a.	2,046	n.a.	n.a.	n.a.	n.a.
Colombia—						
Ore .. .. .	1,117	423	1,112	722	n.a.	n.a.
Ecuador—						
Concentrates .. .. .	660	1,336	n.a.	n.a.	n.a.	n.a.
Peru—						
Ore and concentrates (Pb content) .. .. .	64,865	138,478	152,174	164,000	n.a.	n.a.
Unwrought (Pb content) Refined .. .. .	79,553	77,932	77,402	73,200	64,800	65,800
Burma—						
Ore .. .. .	144	756	360	n.a.	n.a.	n.a.
Unwrought (a) .. .. .	16,081	9,038	10,715	n.a.	n.a.	n.a.

(a) Including alloys.

## EXPORTS OF LEAD, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iran (b)—						
Ore .. .. .	44,225	46,735	35,606	65,585	88,055	89,468
Japan—						
Unwrought (a) ..	7,430	867	3,053	2,352	5,563	5,652
Semi-manufactures (a) ..	325	6,986	1,693	467	932	947
Red lead ..	283	21	234	114	114	116
Korea (South)—						
Ore .. .. .	11,586	12,619	19,615	17,591	16,936	17,208
Thailand—						
Ore .. .. .	12,209	9,074	7,633	3,455	3,313	3,366
Turkey—						
Ore .. .. .	4,489	3,476	8,232	16,951	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

(b) Years ended March 20 following that stated.

## IMPORTS OF LEAD, ETC.\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates (Pb content) (c) ..	21,983	24,551	48,223	46,725	34,795	35,353
Unwrought (a) ..	203,863	176,913	210,848	225,866	251,828	255,869
Scrap (a) ..	2,821	2,679	1,884	1,428	4,467	4,539
Semi-manufactures (a)	77	424	1,006	875	924	939
Channel Islands—						
Unwrought and semi- manufactures (a) ..	111	1,581	202	1,740	198	201
Ghana—						
Unwrought (a) ..	4	1	40	1	51	52
Semi-manufactures (a)	1,330	379	117	269	110	112
Kenya—						
Unwrought (a) ..	197	299	247	281	510	518
Semi-manufactures (a)	10	9	28	29	26	27
Mauritius—						
Unwrought (a) ..	24	6	12	14	1	1
Semi-manufactures (a)	36	57	7	26	30	30
Nigeria—						
Unwrought and semi- manufactures (a) ..	149	456	365	894	522	530
Sierra Leone—						
Semi-manufactures (a)	44	62	26	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania—						
Unwrought (a) ..	26	24	54	64	119	121
Semi-manufactures (a)	11	5	10	20	9	9
Uganda—						
Unwrought (a) ..	105	118	29	67	42	43
Semi-manufactures (a)	12	2	10	10	9	9
Barbados—						
Unwrought (a) ..	(b) 25	—	6	—	13	13
Semi-manufactures (a)	117	145	84	103	62	63
Jamaica—						
Unwrought (a) ..	47	29	199	335	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	76	53	119	248	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Unwrought (a) ..	2	60	—	19	6	6
Semi-manufactures (a)	56	19	36	28	130	132
Red and white lead, etc.	11	30	10	13	6	6
Canada—						
Unwrought ..	559	391	136	116	1,964	1,996
Semi-manufactures, etc.	203	271	355	365	341	347
Red and white lead, etc.	1,342	2,179	2,352	2,912	1,677	1,704
Guyana—						
Semi-manufactures (a)	47	40	46	25	42	43
Ceylon—						
Unwrought (a) ..	364	525	429	342	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	17	22	71	53	<i>n.a.</i>	<i>n.a.</i>
Cyprus—						
Semi-manufactures (a)	277	96	121	153	237	240
Hong Kong—						
Unwrought (a) ..	366	321	88	507	442	449
Scrap ..	20	3	158	372	293	298
Semi-manufactures (a)	190	103	36	124	111	113
Red and white lead ..	123	104	111	179	81	82

\*See footnote on p. 177 concerning the descriptions "unwrought" lead and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Excess of re-exports.

(c) Source: World Bureau of Metal Statistics.

## IMPORTS OF LEAD, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India (b)—						
Ore .. .. .	17	27	27	95	88	89
Unwrought .. .. .	47,750	33,923	31,820	27,738	39,330	39,961
do. alloys .. .. .	1,225	221	130	375	180	183
Semi-manufactures (a)	323	249	331	553	184	187
Malaysia (West)—						
Unwrought (a) .. .. .	184	153	152	179	175	178
Semi-manufactures (a)	440	301	530	1,096	1,042	1,059
Sabah—						
Semi-manufactures (a)	38	52	59	45	51	52
Singapore—						
Semi-manufactures (a)	177	191	248	282	194	197
Australia (c)—						
Unwrought and semi-manufactures (a) .. .. .	69	43	504	126	316	321
Red and white lead, etc.	167	13	33	19	29	29
Fiji—						
Unwrought and semi-manufactures (a) .. .. .	52	68	59	n.a.	n.a.	n.a.
New Zealand (c)—						
Unwrought (a) .. .. .	7,280	5,616	4,391	4,413	n.a.	n.a.
Semi-manufactures (a)	56	23	19	9	n.a.	n.a.
Red and white lead, etc.	955	870	480	569	n.a.	n.a.
Irish Republic—						
Unwrought (a) .. .. .	330	334	996	943	1,186	1,205
Semi-manufactures (a)	100	82	134	318	355	361
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	2,559	3,051	2,553	3,198	5,994	6,090
Unwrought (a) .. .. .	12,700	12,791	14,449	14,406	19,023	19,328
Scrap .. .. .	1,101	953	1,017	1,736	1,226	1,246
Semi-manufactures (a)	222	515	809	641	544	553
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	181,622	128,103	177,869	128,223	191,294	194,364
Unwrought .. .. .	13,112	6,683	11,318	9,897	12,154	12,349
do. alloys .. .. .	436	1,331	3,984	4,782	4,576	4,650
Scrap .. .. .	13,289	8,443	11,715	10,658	13,496	13,713
Semi-manufactures (a)	1,327	908	875	902	838	851
Red and white lead, etc.	2,318	2,086	2,659	3,233	3,822	3,883
Denmark—						
Unwrought .. .. .	12,699	10,546	10,759	9,919	10,617	10,787
do. alloys .. .. .	1,424	623	327	738	549	558
Scrap .. .. .	5,705	7,824	5,920	9,644	7,428	7,549
Semi-manufactures (a)	526	621	577	675	860	874
Red and white lead .. .. .	517	360	404	308	162	165
Finland—						
Unwrought (a) .. .. .	14,165	8,394	8,352	10,366	12,068	12,262
Semi-manufactures (a)	1,213	912	1,571	1,936	836	850
Red and white lead, etc.	530	473	509	686	799	812

(a) Including alloys.

(c) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.



## IMPORTS OF LEAD, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
France—						
Ore .. .. .	119,109	126,427	126,356	121,781	135,645	137,822
Unwrought .. .. .	32,679	35,403	42,130	51,470	43,442	44,139
do. alloys .. .. .	2,162	3,575	4,171	6,055	6,481	6,585
Scrap .. .. .	4,082	4,444	3,232	4,902	6,126	6,224
Semi-manufactures (a)	687	737	722	456	497	505
Red and white lead, etc.	2,129	2,133	2,530	2,801	2,530	2,571
Germany (Federal)—						
Ore .. .. .	185,610	219,687	245,967	228,087	278,832	283,307
Unwrought (a) .. .. .	86,638	80,187	80,948	110,472	124,284	126,278
Scrap (a) .. .. .	1,571	2,581	8,843	20,499	25,898	26,314
Semi-manufactures (a)	2,090	1,569	1,823	1,848	1,772	1,800
Red and white lead, etc.	2,817	2,548	3,206	3,371	4,363	4,433
Greece—						
Ore .. .. .	6,951	8,158	9,316	14,484	n.a.	n.a.
Unwrought .. .. .	2,644	1,842	2,115	4,191	8,082	8,212
Semi-manufactures (a)	104	132	152	88	n.a.	n.a.
Red and White lead ..	822	923	805	212	584	593
Hungary—						
Unwrought .. .. .	n.a.	n.a.	12,772	13,664	15,311	15,557
Iceland—						
Unwrought .. .. .	142	155	74	56	85	86
Semi-manufactures (a)	100	90	69	86	99	101
Red and white lead ..	6	6	n.a.	(b) 15	(b) 12	(b) 12
Italy—						
Ore .. .. .	19,677	20,521	53,450	30,462	31,420	31,924
Unwrought (a) .. .. .	45,113	58,652	24,640	64,118	118,670	120,574
Scrap .. .. .	24,598	29,752	10,414	19,891	31,219	31,720
Semi-manufactures (a)	2,578	1,758	6,499	1,695	754	766
Red and white lead ..	2,894	4,864	5,005	11,245	14,890	15,129
Netherlands—						
Ore .. .. .	5	11	5	7	5	5
Unwrought .. .. .	39,441	41,085	36,407	39,336	42,560	43,243
do. alloys .. .. .	11,539	13,685	13,147	20,915	18,729	19,030
Scrap (a) .. .. .	2,930	5,135	4,464	2,346	3,876	3,938
Semi-manufactures (a)	2,992	3,474	3,449	6,368	2,463	2,503
Red and white lead ..	4,180	4,708	3,827	4,574	4,624	4,698
Norway—						
Unwrought .. .. .	8,699	9,377	7,427	7,554	8,085	8,215
do. alloys .. .. .	2,507	2,172	2,870	2,964	2,877	2,923
Semi-manufactures (a)	1,416	1,012	1,187	1,185	1,216	1,236
Red and white lead ..	1,025	1,013	1,004	886	1,957	1,989
Poland—						
Unwrought .. .. .	17,122	16,819	18,382	14,668	13,954	14,178
Portugal—						
Unwrought (a) .. .. .	8,277	7,509	7,487	8,889	9,378	9,529
Scrap .. .. .	131	88	44	67	78	79
Semi-manufactures (a)	77	17	40	29	60	61
Red and white lead, etc.	59	82	51	86	65	66
Spain—						
Ore .. .. .	3,708	—	11	—	4,946	5,025
Unwrought .. .. .	13,601	456	39	62	5,202	5,286
Scrap .. .. .	887	35	13	51	10	10
Red and white lead ..	95	158	62	(c) 22	(c) 2	(c) 2
Sweden—						
Unwrought .. .. .	6,079	6,498	4,865	5,836	4,868	4,946
do. alloys .. .. .	774	1,076	507	1,223	2,040	2,073
Scrap .. .. .	—	18	896	882	1,171	1,190
Semi-manufactures (a)	1,828	1,492	1,868	1,304	1,848	1,878
Red and white lead ..	1,787	1,655	1,746	1,328	1,610	1,636

(a) Including alloys.

(b) White lead only.

(c) Oxide only.

## IMPORTS OF LEAD, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Switzerland—						
Unwrought .. ..	20,593	19,918	19,903	25,555	25,617	26,028
Semi-manufactures ..	509	558	607	769	726	738
Red and white lead ..	318	552	564	825	728	740
U.S.S.R.—						
Unwrought .. ..	30,600	31,789	38,483	24,408	38,187	38,800
Yugoslavia—						
Ore .. ..	12,536	6,676	12,066	2,788	—	—
Unwrought .. ..	1,564	1,351	8,411	4,543	5,207	5,291
Scrap .. ..	3,413	1,740	150	460	22	22
Algeria—						
Unwrought .. ..	n.a.	1,389	2,335	2,334	n.a.	n.a.
Semi-manufactured ..	n.a.	72	100	174	n.a.	n.a.
Angola—						
Semi-manufactures ..	124	179	216	292	261	265
Red and white lead ..	48	49	62	73	40	41
Egypt—						
Unwrought and scrap ..	2,795	6,138	4,643	8,001	5,468	5,556
Malagasy Republic—						
Unwrought (a) .. ..	211	135	246	247	218	221
Semi-manufactures (a) ..	48	64	49	52	235	239
Red and white lead ..	10	15	11	14	24	24
Morocco—						
Semi-manufactures (a) ..	36	47	59	60	87	88
Red and white lead ..	144	145	173	160	234	238
Mozambique—						
Semi-manufactures (a) ..	148	153	161	121	262	266
Red and white lead ..	37	39	30	33	31	31
South Africa—						
Unwrought .. ..	4,631	5,412	4,207	7,152	10,327	10,493
Semi-manufactures ..	2,610	1,287	2,620	3,506	119	122
Red and white lead ..	(b) 47	(b) 83	(b) 111	88	(b) 81	(b) 82
Sudan—						
Semi-manufactures (a) ..	144	63	200	250	217	220
Costa Rica—						
Unwrought (a) .. ..	34	30	82	65	88	89
Honduras—						
Unwrought .. ..	79	23	49	19	37	38
Semi-manufactures ..	13	33	13	32	20	20
Mexico—						
Unwrought .. ..	9	38	12	7	13	13
Nicaragua—						
Unwrought .. ..	210	109	117	91	191	194
Salvador—						
Unwrought .. ..	113	150	48	121	115	117
Semi-manufactures ..	213	219	194	178	167	170
United States—						
Ore, matte and flue dust (Pb content) .. ..	57,009	128,711	86,807	102,843	38,184	38,797
Bullion and base bullion (Pb content) .. ..	1,692	508	56	13	1,050	1,067
Unwrought (Pb content) do. alloys (Pb content) .. ..	245,266	310,452	292,584	239,232	210,427	213,804
Scrap (Pb content) ..	9,902	14,189	8,843	9,757	7,985	8,113
Semi-manufactures ..	3,102	7,931	3,470	5,818	2,330	2,367
Red and white lead, etc.	1,888	1,971	2,019	1,792	1,861	1,891
Argentina—						
Unwrought .. ..	26,493	26,982	28,026	26,338	18,465	18,762
Unwrought .. ..	20	543	1,840	1,176	1,678	1,705

(a) Including alloys.

(b) Red lead only.

## IMPORTS OF LEAD, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Brazil—						
Unwrought .. .. .	5,466	6,405	11,575	12,414	1,310	1,331
do. alloys .. .. .						
Red and white lead ..	520	874	1,099	1,609	634	644
Chile—						
Unwrought .. .. .	1,600	842	1,956	n.a.	n.a.	n.a.
Bars and sheets .. ..	1,200	658	1,035	n.a.	n.a.	n.a.
Red and white lead ..	n.a.	30	51	n.a.	n.a.	n.a.
Colombia—						
Unwrought (a) .. .. .	2,301	1,442	1,760	n.a.	n.a.	n.a.
Semi-manufactures (a)	194	12	6	n.a.	n.a.	n.a.
Red and white lead ..	1,130	1,081	1,064	n.a.	n.a.	n.a.
Ecuador—						
Unwrought .. .. .	291	253	n.a.	n.a.	n.a.	n.a.
Red and white lead ..	190	165	n.a.	n.a.	n.a.	n.a.
Peru—						
Semi-manufactures (a)	33	37	48	37	n.a.	n.a.
Red and white lead ..	7	4	21	8	n.a.	n.a.
Uruguay—						
Unwrought .. .. .	809	1,092	716	1,018	977	993
Red and white lead, etc.	270	115	86	187	193	196
Venezuela—						
Unwrought .. .. .	4,352	4,896	4,560	2,337	n.a.	n.a.
Semi-manufactures ..	711	544	447	337	n.a.	n.a.
Red and white lead ..	697	970	836	292	n.a.	n.a.
Burma—						
Semi-manufactures (a)	2	13	—	n.a.	n.a.	n.a.
Formosa—						
Unwrought (a) .. .. .	3,656	5,328	3,951	2,634	4,058	4,123
Semi-manufactures (a)	23	35	122	263	33	34
Red and white lead, etc.	51	93	n.a.	107	40	41
Iran (b)—						
Unwrought .. .. .	2,658	3,315	3,513	4,416	7,568	7,689
Semi-manufactures ..	29	29	42	62	32	33
Red and white lead ..	840	593	1,313	1,130	518	526
Iraq—						
Semi-manufactures ..	2	28	21	64	24	24
Israel—						
Unwrought .. .. .	1,284	1,178	2,285	1,727	1,799	1,828
Scrap .. .. .	9	—	57	190	n.a.	n.a.
Semi-manufactures ..	389	408	234	296	1,465	1,489
Red and white lead ..	n.a.	606	733	766	732	744
Japan—						
Ore .. .. .	79,753	128,072	141,880	177,006	206,838	210,157
Unwrought .. .. .	22,655	17,854	11,411	8,286	1,666	1,693
Scrap .. .. .	470	1,108	768	1,981	2,597	2,639
Semi-manufactures (a)	21	3	4	21	36	37
Red and white lead ..	7	14	22	29	74	75
Jordan—						
Unwrought .. .. .	772	423	441	874	1,259	1,279
Red lead .. .. .	158	175	264	685	849	863
Korea (South)—						
Unwrought and semi- manufactures .. .. .	3,551	655	n.a.	n.a.	n.a.	n.a.
Lebanon—						
Unwrought .. .. .	953	1,252	1,394	1,187	1,149	1,167
Semi-manufactures (a)	73	53	22	16	25	25
Philippine Republic—						
Unwrought (a) .. .. .	5,000	4,264	5,799	n.a.	n.a.	n.a.
Semi-manufactures (a)						
		299	230	n.a.	n.a.	n.a.

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

## IMPORTS OF LEAD, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Syria—						
Unwrought .. ..	218	374	814	425	606	616
Red and white lead ..	120	56	147	203	151	153
Thailand—						
Unwrought (a) ..	1,340	1,598	2,884	2,757	2,726	2,770
Semi-manufactures (a)	102	71	251	282	193	195
Turkey—						
Unwrought (a) ..	2,517	4,495	4,273	3,481	<i>n.a.</i>	<i>n.a.</i>
Scrap .. ..	156	277	236	163	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	18	10	1	148	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	377	1,236	223	118	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

**LITHIUM MINERALS**  
**PRODUCTION OF LITHIUM MINERALS**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Uganda— Amblygonite .. ..	—	(a) 50	44	6	—	—
Canada— Lithium minerals (Li <sub>2</sub> O content) .. ..	113	195	—	—	—	—
Australia— Petalite .. ..	933	667	738	710	771	783
<b>OTHER COUNTRIES</b>						
Mozambique— Amblygonite .. ..	<i>n.a.</i>	5	5	1	13	13
Lepidolite .. ..	<i>n.a.</i>	246	591	385	24	24
South Africa— Spodumene .. ..	301	—	36	35	—	—
South West Africa— Amblygonite .. ..	27	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lepidolite .. ..	326	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petalite .. ..	1,200	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Argentina— Lithium minerals .. ..	266	243	125	346	357	362
Brazil— Spodumene (a) .. ..	98	49	—	49	—	—
Other lithium minerals (a) .. ..	<i>n.a.</i>	6,022	<i>n.a.</i>	1,476	3,593	3,651

Lithium minerals are also produced in Rhodesia and the United States and lithium chemicals recovered from Searles Lake brines in California.

(a) Exports.

EXPORTS OF LITHIUM MINERALS

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Uganda—						
Amblygonite .. ..	—	50	—	50	—	—
Australia (a)— .. ..						
Lithium minerals .. ..	345	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Germany (Federal)—						
Lithium minerals .. ..	243	148	126	79	209	212
Mozambique—						
Lepidolite .. ..	<i>n.a.</i>	99	547	502	139	141
South Africa—						
Lithium minerals .. ..	486	—	—	—	—	—
South West Africa—						
Amblygonite .. ..	12	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lepidolite .. ..	534	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petalite .. ..	1,185	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
Spodumene .. ..	98	49	—	49	—	—
Other lithium minerals	<i>n.a.</i>	6,022	<i>n.a.</i>	1,476	3,593	3,651

(a) Years ended June 30 of that stated.

IMPORTS OF LITHIUM MINERALS\*

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.	311	635	753	1,307	2,369	2,407
France .. ..	4,602	2,498	2,559	2,989	4,611	4,685
Germany (Federal) .. ..	9,667	6,207	10,621	7,554	10,672	10,843
Italy .. ..	12,796	992	4,851	5,105	478	486
Spain .. ..	241	360	419	347	263	267
United States .. ..	8,268	23,154	10,172	1,239	1,915	1,946

\*Imports of lithium minerals are not separately recorded in the trade returns of most importing countries.

**MAGNESITE AND DOLOMITE**  
**PRODUCTION OF MAGNESITE AND DOLOMITE**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Dolomite, crude (a) ..	4,200,000	4,700,000	4,900,000	5,700,000	6,700,000	6,800,000
Kenya—						
Magnesite, crude ..	667	415	67	495	4	4
Rhodesia—						
Magnesite, crude ..	(c) 29,000	(c) 39,000	(a) 20,000	(a) 20,000	(a) 20,000	(a) 20,000
Tanzania—						
Magnesite, crude ..	4,488	2,006	1,424	1,522	763	775
Canada—						
Dolomitic magnesite (b)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
	£1,312,306	£1,355,090	£1,173,971	£1,156,248	£1,330,300	£1,330,300
Ceylon—						
Dolomite .. ..	<i>n.a.</i>	13,194	7,773	5,610	3,345	3,399
India—						
Magnesite, crude ..	228,000	242,000	249,000	290,841	343,451	348,962
Dolomite .. ..	1,037,354	1,125,932	1,240,000	1,254,695	1,116,942	1,134,866
Pakistan—						
Magnesite .. ..	(c) 724	(c) 2,010	1,605	(a) 2,000	<i>n.a.</i>	<i>n.a.</i>
Australia—						
Magnesite, crude ..	19,556	23,653	r 23,146	23,153	22,305	22,663
Dolomite .. ..	256,008	290,659	316,731	291,838	313,298	318,326
New Zealand—						
Magnesite, crude ..	557	568	792	—	476	484
Dolomite .. ..	13,251	8,310	8,116	9,917	10,111	10,272
<b>OTHER COUNTRIES</b>						
Austria—						
Magnesite—						
Crude .. ..	1,589,135	1,511,061	1,522,254	1,583,018	1,583,923	1,609,340
Caustic (d) ..	135,663	125,099	114,724	116,699	121,915	123,871
do. powder (d) ..	60,330	48,455	58,072	63,162	55,633	56,526
Dead-burned (d) ..	483,533	442,498	474,464	516,665	537,698	546,326
Bricks (d) .. ..	265,125	234,704	275,062	345,281	393,325	399,637
Belgium—						
Dolomite—						
Crude .. ..	827,678	939,275	1,133,274	1,330,000	1,479,687	1,503,432
Calcined .. ..	314,075	299,199	365,381	382,293	366,479	372,360
France—						
Dolomite, crude ..	1,363,674	1,444,989	1,422,700	1,557,483	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal)—						
Dolomite .. ..	159,128	179,259	243,842	258,086	251,695	255,734
Greece—						
Magnesite—						
Crude .. ..	336,723	363,093	439,000	570,000	704,000	715,000
Caustic (d) ..	35,952	34,194	35,000	50,200	56,477	55,585
Dead-burned (d) ..	89,235	96,394	131,000	166,000	216,446	219,919
Hungary—						
Dolomite .. ..	612,000	640,000	627,000	619,000	<i>n.a.</i>	<i>n.a.</i>
Italy—						
Magnesite, crude ..	2,560	4,864	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite—						
Metallurgical ..	64,568	58,767	61,058	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Refractory, etc. ..	950,982	1,091,797	1,141,492	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Norway—						
Dolomite .. ..	360,400	433,645	382,697	415,654	<i>n.a.</i>	<i>n.a.</i>

(a) Estimated.

(b) Including brucite, dead-burned magnesite and serpentine.

(c) United States Bureau of Mines' estimate.

(d) Derived from crude shown and not additional.

## PRODUCTION OF MAGNESITE AND DOLOMITE (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Portugal— Dolomite .. ..	4,466	5,256	12,003	2,854	8,257	8,390
Spain— Magnesite .. ..	108,000	121,000	247,000	225,462	<i>n.a.</i>	<i>n.a.</i>
Sweden— Dolomite— Crude .. ..	181,318	200,384	275,086	293,404	284,140	288,700
Calcined (a) .. ..	61,698	49,400	49,998	43,994	44,100	44,800
Yugoslavia— Magnesite, crude .. ..	518,367	418,053	393,993	469,466	503,770	511,854
South Africa— Magnesite, crude .. ..	91,828	78,749	58,853	47,361	82,923	84,254
United States— Magnesite— Dead-burned (b) .. ..	760,829	614,022	590,081	658,000	716,000	727,000
Dolomite— Dead-burned (b) .. ..	1,958,069	1,679,000	1,637,000	1,666,000	1,226,000	1,246,000
Argentina— Dolomite .. ..	137,362	194,891	126,214	159,428	<i>n.a.</i>	<i>n.a.</i>
Brazil— Magnesite .. ..	125,064	107,528	135,643	200,000	230,000	234,000
Dolomite .. ..	197,363	221,419	347,514	695,375	<i>n.a.</i>	<i>n.a.</i>
Colombia— Dolomite .. ..	6,378	11,373	12,000	12,705	13,340	13,554
Peru— Dolomite .. ..	2,896	4,700	4,481	8,013	<i>n.a.</i>	<i>n.a.</i>
Uruguay— Dolomitic limestone .. ..	28,483	14,683	16,815	33,668	40,388	41,036
Formosa— Dolomite .. ..	45,399	56,072	73,023	58,138	62,000	63,000
Japan— Dolomite .. ..	1,684,000	2,110,500	2,186,235	2,314,900	2,561,487	2,602,591
Philippine Republic— Dolomite .. ..	4,070	6,687	6,100	4,750	<i>n.a.</i>	<i>n.a.</i>
Turkey— Magnesite .. ..	126,185	90,107	115,841	215,574	283,427	287,975
Dolomite .. ..	426,000	197,000	<i>n.a.</i>	<i>n.a.</i>	277,000	281,000
New Caledonia— Magnesite .. ..	625	1,533	654	1,274	1,082	1,099

Magnesite is known to have been produced in Bulgaria, Czechoslovakia, Poland, U.S.S.R., Iran, Chile, Mexico, Korea and Manchuria. Dolomite is known to have been produced in other countries. Magnesia is extracted from sea-water in the United Kingdom.

(a) Derived partly from crude shown.

(b) Sold or used by producers.



PRODUCTION OF MAGNESIUM

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	3,700	4,000	3,500	2,900	2,800	2,800
Canada .. .. .	6,003	8,062	8,865	9,498	8,557	8,694
<b>OTHER COUNTRIES</b>						
France .. .. .	3,300	4,133	4,407	5,807	4,541	4,614
Germany (Federal) (b) ..	200	—	—	—	—	—
Italy .. .. .	6,412	6,217	6,489	6,594	6,397	6,500
Norway .. .. .	25,388	29,973	30,792	31,495	34,821	35,380
U.S.S.R. (b) .. .. .	34,000	35,000	40,000	44,000	44,000	45,000
United States .. .. .	71,245	86,970	87,835	89,184	100,006	101,610
Japan .. .. .	5,200	6,642	5,568	9,234	9,600	9,800
<b>WORLD'S TOTAL* ..</b>	<b>155,000</b>	<b>181,000</b>	<b>188,000</b>	<b>197,000</b>	<b>211,000</b>	<b>214,000</b>

\*Excluding magnesium known to have been produced in China.

(a) Including re-melt alloys.

(b) "Metallgesellschaft" estimate.

EXPORTS OF MAGNESITE, ETC.\*

Exporting Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Magnesium and alloys ..	1,208	1,109	908	1,052	910	925
Tanzania— Crude .. .. .	1,079	1,177	1,062	1,345	879	893
Canada— Magnesium .. .. .	(£1,144,942)	(£1,247,637)	(£1,642,257)	(£1,821,000)	(£2,221,000)	(£2,221,000)
India (c)— Crude and calcined ..	29,871	17,796	23,798	28,474	33,980	34,525
Malaysia (West)— Dolomite .. .. .	2,150	2,381	2,516	1,291	1,148	1,166
Singapore— Crude .. .. .	988	1,308	1,461	2,215	1,654	1,680
Australia (b)— Crude and calcined ..	2,270	1,889	1,874	1,975	936	951
<b>OTHER COUNTRIES</b>						
Austria— Crude .. .. .	406	379	627	944	1,641	1,667
Caustic .. .. .	90,084	78,365	71,320	72,765	68,856	69,961
Dead-burned .. .. .	220,432	180,415	174,854	161,643	139,580	141,820
Bricks .. .. .	95,479	80,774	96,959	117,739	130,936	133,037
Dolomite .. .. .	38,136	31,786	8,409	16,473	10,901	11,076
Belgium-Luxemburg E.U.—						
Crude .. .. .	8	—	—	—	398	404
Calcined .. .. .	218	1	23	55	610	620
Carbonate .. .. .	31	63	13	8	—	—
Chloride .. .. .	6	5	7	—	2	2
Oxide and hydroxide ..	2	7	52	454	134	136
Sulphate .. .. .	158	323	61	262	429	436
Dolomite, crude ..	276,291	422,671	593,125	675,250	729,067	740,766
do. calcined ..	191,538	190,328	178,461	184,675	187,343	190,349
Czechoslovakia ..	204,000	213,000	259,000	346,000	330,000	335,000
France—						
Crude and calcined ..	225	328	2,517	592	681	692
Magnesium metal (a) ..	140	148	338	660	647	657
Carbonate .. .. .	1,175	1,160	999	1,394	1,177	1,196
Chloride .. .. .	567	2,703	2,760	3,654	2,276	2,313
Oxide and hydroxide ..	1,593	1,928	2,118	3,706	4,474	4,546
Sulphate .. .. .	165	210	167	99	144	146
Dolomite, crude ..	23,347	52,903	60,243	69,673	58,128	59,061
do. calcined ..	4,108	4,306	15,370	20,253	7,876	8,002
Germany (Federal)—						
Crude and calcined ..	6,519	8,821	9,527	11,866	8,874	9,016
Magnesium metal ..	1,008	304	1,026	2,211	1,650	1,677
Carbonate .. .. .	298	244	254	215	377	383
Chloride .. .. .	77,484	82,531	96,824	103,804	109,092	110,843
Oxide and hydroxide ..	2,727	1,956	1,998	2,600	2,568	2,609
Sulphate .. .. .	39,727	34,142	34,227	35,726	38,759	39,381
Dolomite .. .. .	98,338	84,564	72,648	72,458	130,453	132,546
Kieserite .. .. .	230,344	234,407	233,453	270,946	300,351	305,171
Germany (East)— Sulphate .. .. .	28,414	27,717	n.a.	n.a.	n.a.	n.a.
Greece—						
Crude .. .. .	12,448	16,722	15,821	19,020	17,472	17,752
Calcined .. .. .	130,549	129,160	172,068	212,973	274,777	279,186

\* Magnesite unless otherwise stated.

(a) Including alloys and scrap.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

## EXPORTS OF MAGNESITE, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Italy—						
Crude .. .. .	11	9	6	71	29	29
Calcined .. .. .	250	70	19	50	29	29
Magnesium metal in- cluding alloyed .. .. .	4,558	3,117	6,999	4,854	3,755	3,815
Carbonate .. .. .	74	51	66	67	161	164
Chloride .. .. .	36	48	27	6	27	27
Oxide .. .. .	23,563	21,947	15,722	387	596	606
Dolomite, crude .. .. .	15,068	2,930	1,711	2,001	2,047	2,080
do. calcined .. .. .		11,921	12,758	16,635	17,892	18,179
Netherlands—						
Crude .. .. .	1,318	875	973	991	1,526	1,551
Magnesium metal .. .. .	273	262	319	622	434	441
Calcined .. .. .	27,165	16,840	15,670	18,248	20,588	20,918
Chloride .. .. .	284	984	1,426	1,078	989	1,005
Sulphate .. .. .	550	282	283	244	336	341
Norway—						
Magnesium metal .. .. .	29,946	29,636	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite, crude .. .. .	89,905	89,645	93,966	79,913	63,814	64,838
Poland—						
Dolomite .. .. .	2,796	3,300	3,181	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Spain—						
Crude and calcined .. .. .	15,793	10,263	12,446	35,790	53,467	54,325
Dolomite, crude .. .. .	3,597	24,986	10,880	16,597	18,492	18,789
Sweden—						
Crude and calcined .. .. .	114	61	92	4	51	52
Dolomite .. .. .	3,923	4,576	9,272	3,319	4,481	4,553
Bricks .. .. .	4	204	6	25	21	21
U.S.S.R.—						
Magnesium metal .. .. .	8,000	8,400	14,271	14,800	16,535	16,800
Yugoslavia—						
Crude .. .. .	—	—	248	863	1,555	1,580
Ground and dead-burned .. .. .	101,385	83,141	105,867	81,789	103,779	105,444
Bricks .. .. .	21,409	22,673	29,230	44,858	49,542	50,337
South Africa—						
Crude and calcined .. .. .	3,302	3,021	1,905	129	622	632
United States—						
Crude and calcined .. .. .	6,359	6,953	6,414	7,796	9,008	9,153
Dead-burned .. .. .	65,420	57,472	51,033	50,076	79,330	80,603
Magnesium metal (a) .. .. .	13,275	10,705	16,430	24,407	31,904	32,416
Dolomite .. .. .	90,394	100,884	90,802	83,256	68,936	70,042
Brazil .. .. .	4,580	4,626	4,506	10,772	17,236	17,513
Uruguay—						
Dolomite, crude .. .. .	14,833	<i>n.a.</i>	12,007	28,719	2,889	2,935
Formosa—						
Carbonate .. .. .	633	875	243	307	620	630
Japan—						
Dolomite .. .. .	41,689	3,568	2,832	4,093	4,742	4,818
Magnesium metal .. .. .	119	72	76	958	75	76
Carbonate .. .. .	3,433	4,339	5,060	5,517	8,063	8,192
Chloride and sulphate .. .. .	451	221	265	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Korea (South)—						
Dolomite .. .. .	12,996	11,404	10,680	15,610	26,455	26,880
Turkey—						
Carbonate .. .. .	66,008	36,243	54,600	58,949	<i>n.a.</i>	<i>n.a.</i>
Oxide .. .. .	49	315	128	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys and scrap.

## IMPORTS OF MAGNESITE, ETC.\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude and calcined ..	109,004	60,945	76,048	121,630	117,087	118,966
Magnesium (c) ..	4,777	6,060	6,089	5,592	5,370	5,456
Chloride ..	3,832	4,088	4,527	4,746	4,141	4,208
Dolomite ..	19,322	21,763	22,636	26,623	21,483	21,828
Zambia—						
Crude ..	762	<i>n.a.</i>	<i>n.a.</i>	143	<i>n.a.</i>	<i>n.a.</i>
Salts ..	340	632	387	224	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Calcined and dead-burned ..	31,087	34,145	37,878	42,213	60,708	61,682
Magnesium metal ..	2,685	1,333	2,146	1,806	1,818	1,847
do. alloys ..	294	184	270	385	229	233
Oxide ..	1,070	887	1,239	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bricks ..	(£545,937)	(£465,501)	(£822,863)	(£701,000)	(£945,000)	(£945,000)
Dolomite, calcined ..	15,382	9,318	8,845	6,839	5,772	5,865
Trinidad and Tobago—						
Crude ..	27	76	99	45	148	150
Hong Kong—						
Crude ..	100	161	56	92	129	131
Magnesium carbonate ..	827	1,302	1,542	1,859	1,538	1,563
India (b)—						
Crude and calcined ..	—	71	103	6	52	53
Magnesium metal ..	100	123	64	184	137	139
Carbonate ..	144	231	80	47	12	12
Chloride ..	4	—	4	—	—	—
Oxides ..	81	40	51	378	81	82
Malaysia (West)—						
Crude ..	154	204	200	319	234	238
Dolomite ..	126	145	42	76	211	214
Singapore—						
Crude ..	299	93	13	93	212	215
Dolomite ..	2,185	2,831	3,791	4,111	3,150	3,201
Australia (a)—						
Crude and calcined ..	22,524	17,218	26,301	20,282	12,626	12,829
Magnesium metal and powder ..	872	1,028	603	1,009	1,577	1,602
Oxide ..	312	3,347	453	5,109	9,528	9,680
Carbonate ..	175	187	195	209	175	178
Sulphate ..	383	—	—	—	—	—
Dolomite ..	411	448	673	862	1,020	1,036
New Zealand (a)—						
Crude ..	279	267	397	303	<i>n.a.</i>	<i>n.a.</i>
Magnesium metal ..	14	2	7	22	<i>n.a.</i>	<i>n.a.</i>
Sulphate ..	506	613	528	825	<i>n.a.</i>	<i>n.a.</i>
Carbonate ..	190	107	178	150	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
Crude ..	31,803	3,925	7,421	21,003	33,662	34,202
Caustic and dead burned ..	23,046	23,411	35,003	43,402	71,356	72,501
Magnesium metal ..	502	536	886	2,731	3,889	3,952
Chloride ..	1,403	1,228	1,102	1,340	1,359	1,381
Dolomite ..	3,243	3,254	3,451	3,242	3,144	3,195

\* Magnesite unless otherwise stated.

(a) Years ended June 30 of that stated.

(c) Unwrought including alloys.

(b) Years ended March 31 following that stated.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg</b>						
E.U.—						
Crude .. ..	428	210	203	1,161	272	276
Calcined .. ..	3,244	3,334	4,325	8,444	8,302	8,435
Magnesium metal .. ..	1,074	627	880	1,068	1,523	1,548
Carbonate .. ..	247	224	245	161	156	159
Chloride .. ..	889	2,076	4,395	7,801	7,110	7,224
Oxide and hydroxide .. ..	985	1,026	1,450	1,498	1,905	1,936
Sulphate .. ..	2,153	1,622	1,589	1,440	1,639	1,665
Dolomite, crude .. ..	10,674	24,695	40,999	15,853	14,101	14,327
do. calcined .. ..	12,441	14,438	4,467	4,922	10,840	11,014
<b>Denmark—</b>						
Crude .. ..	5,466	4,062	5,109	6,275	8,436	8,571
Carbonate .. ..	77	62	53	51	35	36
Chloride .. ..	587	1,007	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	1,812	1,577	885	1,127	1,273	1,293
Dolomite .. ..	19,287	21,253	21,722	21,588	31,745	32,255
<b>Finland—</b>						
Crude and calcined .. ..	2,006	2,027	2,924	2,344	2,924	2,971
Bricks .. ..	4,427	8,813	5,480	8,785	8,455	8,591
Carbonate .. ..	98	214	129	111	1,148	1,167
Chloride .. ..	307	800	1,204	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	609	3,733	2,386	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite crude .. ..	1,128	15	1,949	3,377	6,157	6,255
<b>France—</b>						
Crude .. ..	1,369	1,044	55	487	56	57
Calcined .. ..	40,121	37,954	41,911	47,453	55,693	56,587
Bricks .. ..	31,629	31,724	34,299	49,952	69,030	70,138
Magnesium metal (a) .. ..	1,029	1,126	1,296	1,249	2,733	2,777
Carbonate .. ..	272	246	302	232	632	642
Chloride .. ..	1,839	2,832	3,675	4,461	4,409	4,480
Oxide and hydroxide .. ..	265	785	951	790	923	938
Sulphate .. ..	2,630	2,975	3,798	3,734	4,806	4,883
Dolomite, crude .. ..	58,778	51,052	56,274	61,038	51,711	52,541
do. calcined .. ..	121,592	118,996	122,320	123,726	113,056	114,870
<b>Germany (Federal)—</b>						
Crude .. ..	1,124	1,484	1,437	1,330	1,706	1,733
Caustic .. ..	119,658	98,257	100,235	102,768	111,486	113,275
Dead-burned .. ..	189,379	199,228	293,217	355,532	304,874	309,766
Magnesium metal (a) .. ..	35,295	32,264	41,185	49,291	52,214	53,052
Carbonate .. ..	1,068	793	1,001	1,029	1,098	1,116
Chloride .. ..	17	26	104	133	58	59
Oxide and hydroxide .. ..	2,014	1,686	2,929	2,484	3,026	3,075
Sulphate .. ..	67	131	114	162	204	207
Dolomite .. ..	145,671	237,515	300,451	423,343	316,029	321,100
<b>Greece—</b>						
Crude and calcined .. ..	334	388	323	677	<i>n.a.</i>	<i>n.a.</i>
Magnesium metal .. ..	13	55	160	77	185	188
Chloride .. ..	76	97	72	187	421	428
Sulphate .. ..	251	266	223	265	356	362
Dolomite .. ..	142	758	1,086	1,660	848	862
<b>Hungary—</b>						
Dead-burned .. ..	76,945	74,580	77,588	80,064	83,044	84,377
<b>Italy—</b>						
Crude .. ..	9,359	15,236	13,199	13,612	11,184	11,364
Calcined .. ..	35,363	36,906	39,683	33,929	43,438	44,135
Chloride .. ..	3,946	5,103	6,653	5,191	5,430	5,517
Oxide .. ..	620	813	838	1,239	4,493	4,565
Sulphate .. ..	6,733	7,985	7,773	8,812	6,203	6,303
Dolomite .. ..	1,123	1,397	1,233	1,617	1,223	1,243

(a) Including alloys and scrap.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>Netherlands—</b>						
Crude .. .. .	2,930	1,747	2,509	3,452	3,641	3,700
Calcined .. .. .	33,394	20,247	32,265	34,864	35,358	35,926
Magnesium metal .. .. .	397	480	494	958	937	952
Carbonate .. .. .	403	423	441	496	436	443
Oxide and hydroxide .. .. .	533	366	458	615	775	788
Sulphate .. .. .	6,549	4,890	4,921	5,038	5,179	5,262
Chloride .. .. .	2,870	3,477	4,016	4,559	4,634	4,708
Dolomite, crude .. .. .	315,309	380,798	427,712	632,516	677,888	688,766
do. calcined .. .. .	60,485	51,189	32,265	42,664	50,303	51,110
<b>Norway—</b>						
Crude and calcined .. .. .	3,964	2,311	5,048	5,429	4,885	4,963
Chloride .. .. .	54,418	55,319	60,708	61,997	76,928	78,163
Sulphate .. .. .	333	236	n.a.	83	65	66
Dolomite .. .. .	4,619	2,930	2,539	2,298	2,852	2,898
Kieserite .. .. .	n.a.	n.a.	56,858	50,264	60,441	61,411
<b>Poland—</b>						
Calcined and caustic .. .. .	152,248	102,502	150,344	134,658	202,907	206,163
Magnesium metal .. .. .	394	464	394	681	690	701
Chloride .. .. .	6,929	7,097	6,311	5,846	5,339	5,425
<b>Portugal—</b>						
Crude and calcined .. .. .	1,016	361	467	435	636	646
Carbonate .. .. .	142	91	125	144	120	122
Oxide .. .. .	48	168	29	14	30	30
Sulphate .. .. .	496	1,128	914	1,139	942	957
<b>Spain—</b>						
Crude and calcined .. .. .	7,096	6,318	18,728	23,132	35,307	35,874
Magnesium metal .. .. .	339	321	325	688	540	549
Dolomite, crude .. .. .	925	1,386	1,631	1,920	858	872
do. calcined .. .. .	122	72	10	354	2,981	3,029
<b>Sweden—</b>						
Crude and calcined .. .. .	15,673	7,135	5,905	7,104	12,570	12,772
Bricks .. .. .	41,961	35,922	37,401	46,189	51,076	51,896
Magnesium metal .. .. .	380	695	647	677	611	621
Carbonate .. .. .	226	156	187	192	162	165
Chloride .. .. .	3,704	4,091	7,254	7,885	8,691	8,831
Sulphate .. .. .	10,004	13,023	14,311	13,232	13,305	13,519
Dolomite .. .. .	22,781	23,996	25,755	23,830	20,057	20,379
<b>Switzerland—</b>						
Magnesium metal .. .. .	644	1,018	773	1,121	1,450	1,473
Calcined .. .. .	4,049	3,309	3,283	3,724	3,949	4,012
Carbonate .. .. .	236	169	187	205	225	229
Chloride .. .. .	4,315	3,255	3,276	3,092	3,222	3,274
Sulphate .. .. .	734	682	737	697	618	628
Dolomite, calcined .. .. .	12,882	12,476	12,430	12,867	13,065	13,275
<b>U.S.S.R.—</b>						
Crude (a) .. .. .	104,700	156,390	208,061	271,800	204,000	207,300
<b>Yugoslavia—</b>						
Bricks .. .. .	318	622	12	1,899	918	933
Magnesium metal .. .. .	491	468	413	605	882	896
Carbonate .. .. .	91	43	82	107	106	108
Dolomite .. .. .	2,275	2,307	3,687	5,491	5,739	5,831
<b>Angola—</b>						
Sulphate .. .. .	81	58	80	56	22	22
<b>Egypt—</b>						
Magnesite and dolomite	2,664	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Morocco—</b>						
Crude .. .. .	6	63	53	57	49	50
Chloride .. .. .	190	937	3	4	5	5
Sulphate .. .. .	220	265	426	707	320	325
Dolomite .. .. .	492	647	560	1,435	1,014	1,030

(a) Magnesite "powder", mainly from North Korea.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>South Africa—</b>						
Crude .. .. .	34,681	54,262	77,999	77,850	103,129	104,784
Carbonate .. ..	n.a.	n.a.	n.a.	214	171	174
<b>Mexico—</b>						
Crude .. .. .	993	n.a.	n.a.	n.a.	n.a.	n.a.
Calcined .. ..	38,243	31,296	57,895	12,805	31,449	31,954
Magnesium metal ..	639	332	768	662	1,399	1,421
Oxide .. .. .	376	592	600	759	905	920
Sulphate .. ..	92	73	148	109	238	242
<b>United States—</b>						
Crude .. .. .	278	292	n.a.	18	19	19
Calcined .. ..	11,876	8,187	10,525	13,605	10,246	10,410
Dead-burned .. ..	115,135	67,898	77,102	77,281	84,532	85,888
Bricks .. .. .	17,977	20,338	15,270	20,593	20,998	21,335
Magnesium metal, etc.	945	6,483	2,096	2,030	1,286	1,307
Oxide .. .. .	68	57	478	92	466	472
Carbonate, precipitated	973	804	1,133	747	721	733
Chloride .. ..	157	403	519	573	736	748
Sulphate .. ..	8,273	28,316	39,519	39,004	26,706	27,135
Kieserite .. ..	41,682					
<b>Argentina—</b>						
Crude and calcined ..	2,153	r 2,675	4,488	13,162	21,085	21,423
Carbonate .. ..	211	373	229	498	354	360
Chloride .. ..	207	152	275	380	295	300
Oxide .. .. .	75	57	84	87	131	133
<b>Brazil—</b>						
Magnesium metal ..	2,772	1,954	3,021	5,129	6,657	6,764
Carbonate .. ..	324	263	401	230	n.a.	n.a.
Chloride .. ..	46	64	131	73	63	64
Oxide .. .. .	123	106	153	178	n.a.	n.a.
Sulphate .. ..	193	146	432	430	278	282
<b>Chile—</b>						
Crude .. .. .	4,800	2,700	14	n.a.	n.a.	n.a.
Calcined .. ..			6,874	n.a.	n.a.	
Dolomite, crude ..	n.a.	33,590	37,263	n.a.	n.a.	n.a.
do. calcined ..	n.a.	50,413	47,998	n.a.	n.a.	n.a.
<b>Colombia—</b>						
Crude and calcined ..	75	69	116	n.a.	n.a.	n.a.
Carbonate .. ..	23	5	12	n.a.	n.a.	n.a.
Chloride .. ..	115	98	95	n.a.	n.a.	n.a.
Oxide .. .. .	767	121	317	n.a.	n.a.	n.a.
Sulphate .. ..	752	191	243	n.a.	n.a.	n.a.
Dolomite .. ..	3,320	3,203	4,642	n.a.	n.a.	n.a.
<b>Peru—</b>						
Crude and calcined ..	1,253	3,183	1,004	1,503	n.a.	n.a.
Carbonate .. ..	35	n.a.	12	16	n.a.	n.a.
Oxide .. .. .	115	93	78	63	n.a.	n.a.
Hydroxide .. ..						
Sulphate .. ..	171	630	301	336	n.a.	n.a.
Chloride .. ..	9	13	28	43	n.a.	n.a.
<b>Venezuela—</b>						
Crude .. .. .	2,868	1,771	3,402	3,630	n.a.	n.a.
Sulphate .. ..	362	255	260	135	n.a.	n.a.
<b>Iran (a)—</b>						
Sulphate .. ..	144	220	473	289	306	311
<b>Israel—</b>						
Crude .. .. .	1,278	1,118	1,603	1,495	1,091	1,108
<b>Japan—</b>						
Crude .. .. .	3,950	3,957	4,711	3,981	3,192	3,243
Dead-burned .. ..	19,806	30,487	19,608	22,919	54,939	55,821

(a) Years ended March 20 of year following that stated.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan <i>(cont.)</i> —						
Magnesium metal ..	1,030	828	436	100	2,158	2,193
Dolomite .. ..	11,691	11,912	10,998	16,295	26,882	27,313
Korea (South)—						
Crude .. ..	294	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Crude and calcined ..	460	569	981	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	166	622	133	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite .. ..	3,223	3,785	4,385	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Sulphate .. ..	<i>n.a.</i>	69	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Chloride .. ..	117	87	268	77	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	617	561	733	410	486	494
Turkey—						
Crude .. ..	68	1	3	63	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. ..	68	213	151	216	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	182	248	444	240	<i>n.a.</i>	<i>n.a.</i>
Oxide .. ..	21	23	82	22	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	629	415	552	504	<i>n.a.</i>	<i>n.a.</i>



**MANGANESE**  
**PRODUCTION OF MANGANESE ORE**  
(including Ferruginous Manganese Ore)

Producing Country	Long tons Tonnes						Estimated Manganese Content						Long tons Tonnes	
	1966	1967	1968	1969	1970	1970	1966	1967	1968	1969	1970	1970	1970	
<b>COMMONWEALTH COUNTRIES</b>														
Botswana ..	..	4,186	9,840	n.a.	n.a.	n.a.	273,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Ghana ..	..	568,100	490,500	407,000	327,500	399,000	14,200	13,000	13,500	157,000	191,000	194,000	194,000	
Zambia ..	..	26,280	24,955	24,999	25,254	—	76,000	74,000	54,000	14,000	—	—	—	
Guyana ..	..	180,000	175,724	128,695	n.a.	n.a.	660,000	640,000	641,000	n.a.	n.a.	n.a.	n.a.	
India ..	..	1,571,000	1,512,725	1,526,400	1,291,125	1,425,409	24,000	15,000	18,000	542,300	598,700	608,300	608,300	
Goa ..	..	72,000	42,106	50,600	170,400	199,536	n.a.	n.a.	n.a.	60,500	70,900	72,000	72,000	
Malaysia (West) ..	..	82,127	84,000	45,000	10,171	—	149,108	258,553	340,000	439,962	359,000	365,000	365,000	
Australia ..	..	312,540	559,967	732,077	907,979	739,651	2,500	2,800	4,100	n.a.	n.a.	n.a.	n.a.	
Fiji ..	..	5,242	5,845	8,705	n.a.	n.a.	25,000	18,000	13,000	—	13,000	13,000	13,000	
New Hebrides (b) ..	..	82,629	71,072	41,807	—	(c)30,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
TOTAL ..	..	2,900,000	2,960,000	2,962,000	2,853,000	2,940,000	2,988,000	2,988,000	2,988,000	2,988,000	2,988,000	2,988,000	2,988,000	
<b>OTHER COUNTRIES</b>														
Bulgaria ..	..	29,500	43,000	40,000	40,000	(a)40,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Czechoslovakia ..	..	89,000	79,000	85,000	82,000	85,000	15,000	15,000	15,000	14,000	15,000	15,000	15,000	
France ..	..	1,788	2,268	2,561	n.a.	n.a.	394	501	563	535	n.a.	n.a.	n.a.	
Greece ..	..	14,269	7,590	7,200	6,280	6,420	7,000	3,500	3,500	3,100	3,150	3,200	3,200	
Hungary ..	..	207,000	206,000	153,000	153,000	166,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Italy ..	..	43,289	46,354	50,018	52,132	49,300	13,000	14,800	16,000	16,000	15,700	16,000	16,000	
Portugal ..	..	8,471	9,677	(a)79,000	6,819	5,439	3,262	3,503	3,681	2,973	2,150	2,200	2,200	
Roumania ..	..	(a)134,000	(a)79,000	(a)79,000	(a)79,000	n.a.	47,000	28,000	28,000	28,000	n.a.	n.a.	n.a.	
Spain ..	..	18,636	8,332	12,696	22,538	10,271	5,933	2,700	4,100	7,300	3,400	3,400	3,400	
Sweden ..	..	21,308	18,516	11,500	8,661	—	2,834	2,426	1,700	1,280	—	—	—	
U.S.S.R. ..	..	7,584,000	7,062,000	6,460,000	6,875,000	66,900,000	3,410,000	3,180,000	2,925,000	3,114,000	3,200,000	3,200,000	3,200,000	
Yugoslavia ..	..	8,480	9,643	13,913	12,136	14,551	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Angola ..	..	18,257	32,656	9,005	28,611	23,000	8,000	14,000	4,000	12,000	9,000	9,000	9,000	

(a) United States Bureau of Mines' estimate. (b) Production of ore as mined. Production of sintered ore (about 50% Mn) was as follows (long tons): 1966—75,036; 1967—70,272; 1968—48,576; 1969—n.a.; 1970—n.a.

(c) Estimated.

**PRODUCTION OF MANGANESE ORE (cont.)**

Long tons      Tonnes

Long tons      Tonnes

Producing Country	1966					1967					1968					1969					1970					1971																								
	Long tons					Tonnes					Long tons					Tonnes					Long tons					Tonnes																								
<b>OTHER COUNTRIES—(cont.)</b>																																																		
Congo (Kinshasa)	236,000	267,000	316,700	306,510	341,470	346,950	110,000	130,000	152,000	147,000	163,870	166,500	55,000	22,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	639,000	600,000	637,000	693,000	740,000	752,000																				
Egypt	183,341	73,978	3,894	4,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,253,407	1,128,885	1,233,801	1,370,900	1,407,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000																					
Gabon	173,138	147,073	114,897	123,033	22,696	23,066	83,000	71,000	56,000	60,000	11,000	11,000	356,696	281,619	157,681	128,514	110,601	112,376	71,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000																				
Morocco	1,950,981	2,087,294	2,388,857	2,601,466	2,975,457	3,023,204	10,900	12,000	6,000	6,000	6,000	1,209,000	777,400	800,000	955,000	1,040,600	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000																					
South Africa	22,650	27,000	13,000	n.a.	2,975,457	3,023,204	10,900	12,000	6,000	6,000	6,000	1,209,000	777,400	800,000	955,000	1,040,600	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000																					
South West Africa	1,500	2,455	4,900	839	1,142	1,160	1,500	2,455	4,900	839	1,142	1,160	1,500	2,455	4,900	839	1,142	1,160	1,500	2,455	4,900	839	1,142	1,160	1,500	2,455	4,900	839	1,142	1,160																				
Sudan	113,000	109,000	n.a.	141,200	269,600	273,900	30,608	32,093	26,284	26,284	26,284	98,609	298,940	269,415	228,543	384,500	328,800	334,100	41,614	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000																				
Mexico	298,940	269,415	228,543	384,500	328,800	334,100	43,964	41,614	35,000	35,000	35,000	45,300	27,331	35,958	33,183	35,934	7,600	8,000	10,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000																				
United States (c)	1,431,919	1,336,916	2,063,482	1,979,060	1,759,839	1,788,079	644,000	602,000	928,000	890,000	792,000	805,000	17,638	14,620	23,467	23,325	26,301	26,723	7,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000																				
Argentina	17,638	14,620	23,467	23,325	26,301	26,723	8,000	7,000	11,000	11,000	11,000	11,000	17,638	14,620	23,467	23,325	26,301	26,723	7,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000																				
Brazil	840	1,146	7,040	11,811	1,892	1,922	8,000	400	3,000	5,000	800	11,000	17,638	14,620	23,467	23,325	26,301	26,723	7,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000																				
Chile	980,000	690,000	890,000	1,000,000	1,000,000	1,000,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	980,000	690,000	890,000	1,000,000	1,000,000	1,000,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.																				
Peru	37,000	11,000	2,100	6,300	2,000	2,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	37,000	11,000	2,100	6,300	2,000	2,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.																				
China (a)	315,834	333,636	307,364	296,060	266,697	270,977	100,000	110,000	100,000	100,000	90,000	90,000	(a)37,000	40,000	12,000	34,800	40,000	40,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.																			
Indonesia	5,879	7,127	3,383	2,278	2,359	2,397	100,000	110,000	100,000	100,000	90,000	90,000	5,879	7,127	3,383	2,278	2,359	2,397	100,000	110,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000																				
Iran (b)	55,207	78,923	65,000	20,000	6,700	6,700	25,000	41,435	34,000	9,000	2,700	2,600	55,207	78,923	65,000	20,000	6,700	6,700	25,000	41,435	34,000	9,000	2,700	2,600	2,600	2,600	2,600	2,600	2,600	2,600																				
Japan	69,487	77,324	40,419	29,463	23,488	23,865	36,800	40,900	21,400	14,100	11,300	11,500	69,487	77,324	40,419	29,463	23,488	23,865	36,800	40,900	21,400	14,100	11,300	11,500	11,500	11,500	11,500	11,500	11,500	11,500																				
Korea (South)	23,382	41,207	25,000	13,473	9,344	9,494	8,000	12,000	9,000	3,000	3,000	3,000	23,382	41,207	25,000	13,473	9,344	9,494	8,000	12,000	9,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000																				
Philippines	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000																				
Thailand	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000																				
Turkey	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000																				
<b>TOTAL</b>	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000	15,800,000	15,000,000	15,000,000	15,800,000	16,000,000	16,200,000																				
<b>World's TOTAL</b>	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000	18,700,000	19,000,000	18,000,000	18,600,000	19,000,000	19,200,000																				

Manganese ore is also produced in Cuba and North Vietnam.

(a) United States Bureau of Mines' estimate.

(b) Years ended March 20 following that stated.

(c) Shipments.

## EXPORTS OF MANGANESE ORE, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Spiegeleisen .. ..	—	10	31	96	—	—
Ferro-manganese ..	22,101	17,794	22,463	340	2,226	2,262
Ghana—						
Ore .. ..	589,506	445,310	438,856	324,198	396,974	403,345
Zambia—						
Ore .. ..	25,695	24,325	17,211	—	—	—
Canada—						
Ferro-manganese ..	5,109	3,874	909	4,921	502	510
Guyana—						
Ore and concentrates ..	194,050	191,668	97,593	—	—	—
India (b)—						
Ore .. ..	688,955	451,018	556,430	465,176	537,406	546,030
Ferruginous manganese ore .. ..	478,503	578,363	737,273	676,132	1,069,177	1,086,334
Ferro-manganese ..	10,127	28,833	69,150	113,618	86,122	87,504
Malaysia (West)—						
Ore .. ..	68,220	59,329	40,102	44,948	—	—
Singapore—						
Ore .. ..	1,485	1,739	2,049	2,413	1,005	1,021
Australia (a)—						
Ore .. ..	69,031	271,524	393,725	629,531	638,685	648,936
Fiji—						
Ore .. ..	5,089	4,360	10,407	11,117	<i>n.a.</i>	<i>n.a.</i>
New Hebrides—						
Concentrates—						
Unsintered .. ..	1,370	—	—	—	28,094	28,545
Sintered .. ..	62,762	73,429	58,241	—	—	—
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Ore .. ..	1,202	2,545	2,971	11,170	12,919	13,126
Ferro-manganese ..	63,070	64,106	60,164	65,715	68,309	69,405
Spiegeleisen .. ..	2,066	3,150	2,542	2,923	4,256	4,324
France—						
Ore (c) .. ..	751	1,118	495	585	1,289	1,310
Metal .. ..	3,389	3,270	4,600	6,374	6,225	6,325
Ferro-manganese ..	184,815	167,227	204,910	227,058	295,642	300,386
Spiegeleisen .. ..	12,073	7,492	7,162	2,436	2,860	2,906
Germany (Federal)—						
Ore .. ..	5,766	601	5,811	4,352	396	402
Metal .. ..	1,460	12	31	68	139	141
Ferro-manganese ..	90,111	39,852	74,306	44,194	38,515	39,133
Spiegeleisen .. ..	11,533	12,278	13,804	11,156	15,278	15,523
Greece—						
Ore .. ..	23,662	6,019	5,579	4,937	3,941	4,004
Italy—						
Ore (c) .. ..	548	295	221	38	254	258
Ferro-manganese ..	9,125	8,478	17,042	7,758	6,060	6,157
Netherlands—						
Ore (c) .. ..	10,596	18,436	21,439	24,686	33,714	34,255
Norway—						
Ore .. ..	3,000	2,000	1,600	200	930	945
Ferro-manganese ..	112,460	118,611	141,483	185,147	152,628	155,077
Ferro-silico-manganese	106,830	111,466	129,789	141,217	125,257	127,267
Portugal—						
Ore .. ..	7,705	6,333	5,703	9,112	2,953	3,000

(a) Years ended June 30 of that stated.

(c) Including manganiferous iron ore.

(b) Years ended March 31 following that stated.

## EXPORTS OF MANGANESE ORE, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Roumania—						
Ore .. .. .	47,700	58,659	65,548	47,300	28,400	28,900
Sweden—						
Ore .. .. .	23,385	4,256	3,040	2,358	514	522
Metal .. .. .	37	9	28	79	43	44
Ferro-manganese ..	8,028	12,561	15,052	25,440	9,120	9,266
Ferro-silico-manganese	15	494	27	2,459	787	800
U.S.S.R.—						
Ore .. .. .	1,198,800	1,230,258	1,131,830	1,178,000	1,181,048	1,200,000
do. (dioxide) .. ..	16,600	16,700	18,600	17,900	15,649	15,900
Ferro-manganese ..	86,000	85,600	95,600	105,800	116,628	118,500
Yugoslavia—						
Ferro-manganese ..	701	389	20	1,344	1,181	1,200
Silico-manganese ..	8,960	11,216	16,484	14,866	14,217	14,445
Angola—						
Ore .. .. .	5,674	12,895	37,308	27,043	20,266	20,591
Congo (Kinshasa)—						
Ore (a) .. .. .	230,400	271,500	171,600	330,000	433,000	440,000
Egypt—						
Ore .. .. .	120,297	30,510	—	n.a.	n.a.	n.a.
Gabon—						
Ore .. .. .	1,162,374	1,207,049	1,142,503	1,524,235	1,580,000	1,600,000
Ivory Coast—						
Ore .. .. .	173,420	103,919	130,889	53,058	71,907	73,061
Morocco—						
Ore .. .. .	299,608	211,171	166,127	130,367	113,632	115,455
South Africa—						
Ore .. .. .	1,482,352	1,425,916	1,716,764	1,881,488	2,092,297	2,125,872
Metal .. .. .	5,883	7,870	7,912	9,181	8,717	8,857
Ferro-manganese ..	154,400	125,816	127,603	249,937	210,053	213,424
South West Africa—						
Ore .. .. .	24,329	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico—						
Ore .. .. .	39,965	10,284	6,848	4,132	23,970	24,355
Mn content .. .. .	18,227	6,085	3,988	2,653	n.a.	n.a.
United States—						
Ore .. .. .	14,721	13,728	16,518	42,595	18,119	18,410
Metal .. .. .	1,698	1,239	1,891	2,206	2,652	2,695
Ferro-manganese ..	487	1,662	3,312	1,570	19,416	19,728
Spiegeleisen .. ..	n.a.	n.a.	n.a.	n.a.	778	790
Brazil—						
Ore .. .. .	941,450	533,453	1,106,158	847,027	1,562,998	1,588,079
Ferro-manganese ..	764	305	79	148	4,498	4,570
Chile—						
Ferro-manganese ..	3,600	1,436	497	n.a.	n.a.	n.a.
Peru—						
Ore .. .. .	—	188	n.a.	n.a.	n.a.	n.a.
Iran (b)—						
Ore .. .. .	39,171	10,654	32,282	935	9,000	9,144
Japan—						
Ore .. .. .	386	924	1,334	2,241	2,900	2,947
Ferro-manganese ..	14,808	4,736	7,044	11,149	8,227	8,359
Ferro-silico-manganese	589	343	1,275	1,231	1,207	1,226
Philippine Republic—						
Ore .. .. .	63,802	74,634	49,726	n.a.	n.a.	n.a.
Thailand—						
Ore .. .. .	65,404	79,084	9,680	8,480	6,956	7,068
Turkey—						
Ore .. .. .	6,605	5,738	8,154	4,324	n.a.	n.a.

(a) Estimated.

(b) Years ended March 20 following that stated.

## IMPORTS OF MANGANESE ORE, ETC.

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	364,962	404,526	473,650	430,918	513,188	521,425
Metal .. .. .	1,861	2,494	2,246	3,491	3,229	3,280
Ferro-manganese .. .. .	75,849	73,324	66,381	94,366	74,714	75,913
Spiegeleisen .. .. .	49	—	—	—	—	—
Silico-manganese .. .. .	27,847	24,390	26,632	30,147	28,038	28,488
Canada—						
Ores and concentrates						
(Mn content) .. .. .	164,377	73,803	61,795	96,388	113,235	115,052
Metal .. .. .	2,376	1,986	2,922	2,755	2,273	2,310
Ferro-manganese and spiegeleisen .. .. .	43,855	14,325	24,947	21,896	17,608	17,891
Silico-manganese and silico-spiegel .. .. .	1,724	3,752	1,200	4,071	960	975
Hong Kong—						
Ore .. .. .	311	10	1	132	98	100
India (c)—						
Ore .. .. .	8,740	3,147	6,958	7,592	5,775	5,868
Ferro-manganese .. .. .	539	317	114	34	—	—
Malaysia (West)—						
Ore .. .. .	1,382	1,622	1,836	2,252	1,603	1,629
Singapore—						
Ore .. .. .	5,576	4,032	8,919	3,699	5,508	5,596
Australia (b)—						
Ore .. .. .	34,340	7,370	8,260	6,849	8,311	8,444
Metal .. .. .	241	353	330	438	1,577	1,602
Ferro-manganese .. .. .	11,122	2,775	10,459	9,998	6,592	6,698
New Zealand (b)—						
Ferro-manganese .. .. .	840	742	429	1,131	n.a.	n.a.
OTHER COUNTRIES						
Austria—						
Ore .. .. .	1,285	580	794	780	922	937
Spiegeleisen .. .. .	2,485	1,765	2,650	2,745	614	624
Ferro-manganese .. .. .	12,095	11,291	15,327	19,271	17,297	17,575
Belgium-Luxemburg						
E.U.—						
Ore (a) .. .. .	254,802	280,990	301,653	356,797	344,256	349,780
Ferro-manganese .. .. .	67,754	73,062	74,031	83,434	85,602	86,976
Ferro-silico-manganese .. .. .	4,643	5,924	10,066	11,631	9,903	10,062
Spiegeleisen .. .. .	12,672	14,749	19,382	21,076	17,789	18,075
Czechoslovakia—						
Ore .. .. .	282,000	301,000	405,000	379,000	199,000	202,000
Denmark—						
Ore .. .. .	8,056	8,517	9,203	8,962	11,379	11,562
Ferro-manganese .. .. .	1,665	2,197	5,704	5,879	7,774	7,899
Ferro-silico-manganese .. .. .	2,494	2,855	2,785	4,109	2,959	3,007
Finland—						
Ferro-manganese .. .. .	1,214	2,153	3,194	3,623	5,931	6,026
France—						
Ore (a) .. .. .	826,816	678,933	875,903	960,429	1,077,833	1,095,129
Metal .. .. .	547	665	337	404	315	320
Ferro-manganese .. .. .	16,421	21,546	20,128	24,786	27,288	27,726
Spiegeleisen .. .. .	2,262	4,303	2,395	3,329	4,173	4,240
Germany (Federal)—						
Ore .. .. .	607,071	347,500	572,725	313,890	397,231	403,605
do. (ferruginous) .. .. .	246,627	314,234	373,837	385,425	304,411	309,296
Metal .. .. .	1,831	2,615	4,225	4,810	5,106	5,188
Ferro-manganese .. .. .	87,323	71,605	109,118	142,177	159,657	162,219
Spiegeleisen .. .. .	10,013	3,331	3,159	766	206	209

(a) Including manganiferous iron ore.

(c) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

## IMPORTS OF MANGANESE ORE, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES						
(cont.)						
Germany (East)—						
Ore (b) .. .. .	72,613	75,236	49,317	72,889	67,177	68,255
Greece—						
Ore .. .. .	56	8	171	3,052	n.a.	n.a.
Hungary—						
Ferro-manganese ..	14,634	12,233	25,454	23,917	28,840	29,303
Italy—						
Ore (a) .. .. .	90,339	150,549	166,829	158,035	181,409	184,320
Metal .. .. .	1,104	1,384	1,874	1,997	1,826	1,855
Spiegeleisen .. ..	13,716	24,861	29,025	31,537	13,000	13,209
Ferro-manganese ..	76,652	85,550	86,054	111,672	109,298	111,052
Ferro-silico-manganese	6,710	12,005	15,638	21,234	17,810	18,096
Netherlands—						
Ore (a) .. .. .	26,829	42,095	35,564	57,007	109,639	111,398
Ferro-manganese ..	17,236	23,255	24,020	33,614	38,736	39,358
Ferro-silico-manganese	323	899	1,147	1,155	2,372	2,410
Spiegeleisen .. ..	915	317	201	373	142	144
Norway—						
Ore .. .. .	480,844	526,259	640,356	617,122	536,105	544,708
Poland—						
Ore .. .. .	391,293	348,434	345,530	387,621	383,238	389,388
Spain—						
Ore .. .. .	140,683	132,715	181,277	139,834	197,186	200,350
Ferro-manganese ..	1,324	949	950	2,178	967	983
Sweden—						
Ore .. .. .	45,230	106,621	86,033	67,097	112,978	114,791
Metal .. .. .	1,256	1,193	1,486	2,477	2,747	2,791
Ferro-manganese ..	22,727	20,834	30,458	26,291	31,374	31,878
Spiegeleisen .. ..	—	108	—	—	—	—
Ferro-silico-manganese	8,567	7,382	11,847	10,278	10,357	10,523
Yugoslavia—						
Ore .. .. .	34,502	48,218	34,981	52,490	47,478	48,240
Metal .. .. .	110	50	64	151	188	191
Ferro-manganese ..	267	2,075	2,489	166	559	568
South Africa—						
Ore .. .. .	930	419	n.a.	653	1,769	1,797
Mexico—						
Ferro-manganese ..	308	423	410	582	894	908
United States—						
Ore (over 35% Mn) ..	2,367,784	1,844,547	1,630,000	1,733,067	1,549,154	1,574,013
Mn content .. .. .	1,126,325	871,215	776,822	876,865	755,864	767,993
Ore (10% to 35% Mn) ..	38,187	4,881	34,732	5,570	—	—
Mn content .. .. .	11,088	1,556	10,526	640	—	—
Metal .. .. .	1,803	1,998	2,842	1,224	1,140	1,158
Ferro-manganese ..	230,270	192,660	182,455	269,612	259,774	263,942
Mn content .. .. .	173,717	149,596	142,043	209,429	202,659	205,911
Silico-manganese						
Mn content .. .. .	21,470	20,907	15,076	19,050	8,593	8,731
Argentina—						
Ferro-manganese ..	474	298	624	398	503	511
Brazil—						
Ferro-manganese ..	319	479	142	595	98	100
Chile—						
Ferro-manganese ..	2	1,462	—	n.a.	n.a.	n.a.
Silico-manganese ..	n.a.	5	n.a.	n.a.	n.a.	n.a.
Japan—						
Ore .. .. .	1,122,356	1,482,975	1,725,459	1,992,972	2,543,015	2,583,823
Manganiferous iron ore	239,632	324,889	221,134	153,855	72,644	73,810
Ferro-manganese ..	—	9,243	2,355	24,171	47,115	47,871
Turkey—						
Ferro-manganese ..	8,507	5,478	4,807	9,123	n.a.	n.a.

(a) Including manganiferous iron ore.

(b) Mn content.

**MERCURY**  
**PRODUCTION OF MERCURY**

Producing Country	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	—	—	327,940	1,520,000	1,824,000	827,350
<b>OTHER COUNTRIES</b>						
Italy .. .. .	4,070,000	3,653,440	4,052,160	3,702,720	3,373,000	1,530,000
Roumania .. .. .	14,440	14,440	—	—	—	—
Spain .. .. .	5,324,104	3,724,000	4,352,000	4,895,000	3,627,000	1,645,000
U.S.S.R. (c) .. .. .	3,000,000	3,400,000	3,400,000	3,600,000	3,650,000	1,655,000
Yugoslavia .. .. .	1,208,000	1,201,536	1,124,357	1,089,083	1,175,000	533,000
Tunisia .. .. .	19,300	22,156	23,479	18,519	7,600	3,450
Mexico .. .. .	1,680,000	1,095,360	1,306,000	1,710,000	1,360,000	616,000
United States .. .. .	1,672,600	1,807,600	2,194,400	2,231,400	2,075,000	941,000
Bolivia (a) .. .. .	<i>n.a.</i>	11,000	10,000	5,000	900	408
Chile .. .. .	7,295	13,995	39,013	21,771	29,451	13,359
Colombia .. .. .	6,395	14,492	24,990	23,734	16,319	7,402
Peru .. .. .	233,859	228,399	229,662	267,432	258,400	117,208
China (c) .. .. .	2,000,000	1,500,000	1,500,000	1,500,000	1,500,000	680,000
Japan .. .. .	690,000	660,000	583,400	497,300	448,900	203,200
Philippine Republic .. .. .	185,700	198,400	269,344	264,328	353,248	160,231
Turkey .. .. .	260,000	340,614	355,399	497,363	653,000	296,000
<b>WORLD'S TOTAL (b) ..</b>	<b>21,000,000</b>	<b>18,000,000</b>	<b>20,000,000</b>	<b>21,000,000</b>	<b>21,000,000</b>	<b>9,500,000</b>

Mercury is also produced in Czechoslovakia; an allowance has been made for this in the total.

(a) Exports.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

## EXPORTS OF MERCURY, ETC.

Exporting Country and Description	Lb. avdp.					Kilograms
	1966	1967	1968	1969	1970	1970
Austria—						
Mercury .. ..	22,300	24,900	37,250	24,470	20,723	9,400
Belgium-Luxemburg E.U.—						
Mercury .. ..	30,000	15,400	38,600	40,000	44,754	20,300
Mercury compounds ..	200	200	200	400	2,645	1,200
France—						
Mercury .. ..	11,000	20,000	22,000	9,000	39,684	18,000
Mercury compounds ..	—	4,000	2,200	2,200	41,888	19,000
Germany (Federal)—						
Mercury .. ..	125,700	87,300	73,900	39,000	78,705	35,700
Italy—						
Mercury .. ..	3,452,000	2,809,600	2,681,400	2,588,700	1,176,855	533,900
Mercury compounds ..	—	661	220	1,323	2,425	1,100
Netherlands—						
Mercury .. ..	49,000	85,980	50,706	22,046	17,637	8,000
Mercury oxide .. ..	4,000	—	—	2,200	—	—
Spain—						
Mercury .. ..	3,999,829	3,839,764	3,266,121	3,187,884	3,289,296	1,492,000
Mercury compounds ..	64,177	415,238	465,308	471,789	403,446	183,000
Sweden—						
Mercury .. ..	51,000	18,000	24,250	17,637	17,637	8,000
Switzerland—						
Mercury .. ..	7,476	7,161	10,276	4,647	5,649	2,562
U.S.S.R.—						
Mercury .. ..	44,000	46,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Yugoslavia—						
Mercury .. ..	1,088,005	1,115,766	1,077,057	1,122,862	1,058,688	480,213
Mercury compounds ..	44,101	56,859	91,807	<i>n.a.</i>	27,525	12,485
Mexico—						
Mercury .. ..	1,485,000	965,000	1,032,000	2,441,000	2,663,144	1,207,982
United States—						
Mercury .. ..	27,132	199,682	569,696	38,497	353,648	160,412
Bolivia—						
Mercury .. ..	<i>n.a.</i>	11,000	10,000	5,000	900	408
Colombia—						
Mercury .. ..	2,191	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Mercury .. ..	210,369	225,595	267,087	160,294	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Mercury .. ..	120,359	65,832	36,978	83,260	27,833	12,625
Philippine Republic—						
Mercury .. ..	156,000	187,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Mercury .. ..	236,602	340,523	231,666	496,371	<i>n.a.</i>	<i>n.a.</i>



## IMPORTS OF MERCURY, ETC.

Importing Country and Description	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Mercury .. ..	1,140,702	1,101,330	1,118,482	1,450,886	761,074	345,217
Canada—						
Mercury .. ..	404,600	356,300	197,900	133,600	153,300	69,500
Hong Kong—						
Mercury .. ..	25,438	24,006	34,751	31,911	34,518	15,657
India (b)—						
Mercury .. ..	242,012	582,814	417,315	435,442	350,550	159,007
Malaysia (West)—						
Mercury .. ..	9,066	3,758	2,558	4,626	4,905	2,225
Australia (a)—						
Mercury .. ..	102,215	141,970	113,380	77,023	76,915	34,888
Mercury compounds .. ..	13,390	3,356	4,463	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
New Zealand (a)—						
Mercury .. ..	9,933	10,864	8,100	5,684	<i>n.a.</i>	<i>n.a.</i>
OTHER COUNTRIES						
Austria—						
Mercury .. ..	44,300	24,700	15,653	16,755	29,300	13,300
Belgium-Luxemburg						
E.U.—						
Mercury .. ..	103,800	310,000	205,000	548,290	268,700	121,900
Mercury compounds .. ..	20,300	10,400	16,755	27,116	49,100	22,300
Denmark—						
Mercury .. ..	46,000	39,683	28,660	44,092	44,000	20,000
Mercury compounds .. ..	13,000	15,432	15,432	13,228	8,800	4,000
Finland—						
Mercury .. ..	77,000	48,502	37,479	136,687	117,000	53,100
France—						
Mercury .. ..	637,000	739,000	696,600	718,700	696,600	316,000
Mercury compounds .. ..	64,000	55,000	55,100	64,900	40,000	18,000
Germany (Federal)—						
Mercury .. ..	1,479,100	945,600	1,148,600	1,708,300	1,918,000	870,000
Greece—						
Mercury .. ..	81,952	22,000	6,600	19,200	6,200	2,800
Italy—						
Mercury .. ..	79,600	87,083	49,824	48,722	378,000	171,500
Mercury compounds .. ..	27,100	19,400	18,959	18,299	19,600	8,900
Netherlands—						
Mercury .. ..	269,000	101,413	99,208	152,119	137,000	62,000
Mercury compounds .. ..	146,000	125,663	158,730	147,710	183,000	83,000
Norway—						
Mercury .. ..	46,000	46,000	57,000	75,000	66,000	30,000
Poland—						
Mercury .. ..	622,000	769,400	509,268	504,858	520,000	236,000
Portugal—						
Mercury .. ..	58,000	15,873	17,637	63,934	68,000	31,000
Mercury compounds .. ..	2,000	4,409	2,204	3,306	4,400	2,000
Sweden—						
Mercury .. ..	185,000	90,400	302,033	121,254	123,000	56,000
Switzerland—						
Mercury .. ..	54,820	23,239	60,102	57,025	154,326	70,001
Yugoslavia—						
Mercury .. ..	26	650	54,875	120,422	28,911	13,114
Mercury compounds .. ..	2,465	26,660	77,287	44,348	7,284	3,304
Angola—						
Mercury .. ..	522	1,245	1,144	333	1,673	759
Mercury compounds .. ..	24,260	20	223	13,040	36,917	16,745

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF MERCURY, ETC. (cont.)

Importing Country and Description	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Morocco—						
Mercury .. ..	1,054	267	935	1,126	4,885	2,216
Mozambique—						
Mercury .. ..	251	55	192	212	223	101
South Africa—						
Mercury .. ..	255,025	85,519	93,699	98,921	77,817	35,297
Tunisia—						
Mercury .. ..	3,071	683	2,641	655	7,432	3,371
United States—						
Mercury .. ..	2,383,747	1,824,885	1,722,860	2,379,857	1,669,873	757,441
Mercury compounds ..	n.a.	69	169	9,022	136	62
Argentina—						
Mercury .. ..	54,168	18,867	12,531	41,921	47,657	21,617
Mercury compounds ..	6,027	293	2,619	7,650	845	383
Brazil—						
Mercury .. ..	122,820	54,476	185,179	127,868	235,895	107,000
Chile—						
Mercury .. ..	n.a.	413	1,021	n.a.	n.a.	n.a.
Mercury compounds ..	n.a.	4,995	n.a.	n.a.	n.a.	n.a.
Columbia—						
Mercury .. ..	10,029	15,159	3,508	n.a.	n.a.	n.a.
Mercury compounds ..	14,561	5,875	4,019	n.a.	n.a.	n.a.
Peru—						
Mercury .. ..	1,197	2,533	150	604	n.a.	n.a.
Mercury compounds ..	4,037	1,614	2,152	1,717	n.a.	n.a.
Uruguay—						
Mercury .. ..	1,750	—	n.a.	5,732	7,937	3,600
Venezuela—						
Mercury .. ..	11,449	4,204	6,493	3,787	n.a.	n.a.
Mercury compounds ..	11,956	15,646	11,576	11,449	n.a.	n.a.
Formosa—						
Mercury .. ..	69,845	71,670	107,037	83,928	120,156	54,501
Iran (a)—						
Mercury .. ..	8,056	981	96,904	20,895	720	327
Japan—						
Mercury .. ..	1,748,184	2,443,456	1,981,254	1,943,081	2,744,371	1,244,820
Philippine Republic—						
Mercury .. ..	n.a.	1,129	805	n.a.	n.a.	n.a.
Thailand—						
Mercury .. ..	27,302	1,208	19,460	531,308	9,762	4,428
Mercury compounds ..	5,298	4,601	5,505	11,023	n.a.	n.a.
Turkey—						
Mercury compounds ..	4,559	5,822	6,605	13,702	n.a.	n.a.

(a) Years ended March 20 of year following that stated.

**MICA**  
**PRODUCTION OF MICA**

	Lb. avdp.					Kilogrms.
Producing Country	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Block and sheet ..	—	—	818	—	—	—
Tanzania—						
Sheet .. .. .	199,000	170,900	157,800	212,800	126,500	57,390
Waste .. .. .	880,700	276,800	526,800	253,120	—	—
Uganda .. .. .	360	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada (a)—						
Sold for mechanical						
splitting .. .. .	4,000	—	—	—	—	—
Ground .. .. .	339,800	—	—	—	—	—
Scrap .. .. .	200,000	—	—	—	—	—
India—						
Crude .. .. .	50,518,913	40,018,298	38,949,057	38,858,667	35,878,000	16,274,000
Waste .. .. .	15,449,991	11,177,434	9,861,274	11,724,180	10,939	4,962
<b>OTHER COUNTRIES</b>						
France .. .. .	492,000	630,560	3,358,900	4,560,000	<i>n.a.</i>	<i>n.a.</i>
Norway—						
Crude .. .. .	} c 6,610,000	9,885,000	10,613,000	8,393,000	9,493,000	4,306,000
Waste .. .. .						
Yugoslavia .. .. .	120,439	261,598	316,315	298,870	501,479	227,467
Malagasy Republic—						
Phlogopite (block and						
splittings) .. .. .	1,580,000	1,633,000	1,776,000	1,827,632	2,065,700	936,986
Mozambique .. .. .	<i>n.a.</i>	220,000	375,540	768,999	557,375	252,821
South Africa—						
Sheet .. .. .	1,068	9,331	20,386	220,229	23,387	10,608
Waste .. .. .	4,926,000	10,180,000	17,456,000	13,998,000	16,647,100	7,550,990
South West Africa .. .. .	56,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico .. .. .	873,000	1,949,000	1,625,000	1,310,000	1,235,000	560,100
United States (d)—						
Sheet (uncut) .. .. .	4,000	20,000	15,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Scrap (b) .. .. .	226,266,000	237,006,000	250,646,000	266,116,480	237,686,400	107,812,000
Argentina—						
Sheet .. .. .	290,279	299,488	208,320	262,961	300,000	136,000
Waste .. .. .	2,111,451	2,210,656	1,317,120	1,263,524	1,300,000	589,700
Brazil .. .. .	2,244,000	2,295,000	3,677,000	3,922,000	4,000,000	1,814,000
<b>TOTAL*</b> .. .. .	<b>288,000,000</b>	<b>310,000,000</b>	<b>336,000,000</b>	<b>349,000,000</b>	<b>314,000,000</b>	<b>143,000,000</b>

\* Excluding mica known to have been produced in Roumania, U.S.S.R. and China.

The following amounts of damourite were produced in Australia, (lb. avdp.): 1966—1,380,000; 1967—1,091,000; 1968—1,088,640; 1969—1,308,160; 1970—*n.a.*

(a) Sales.

(b) Including mica recovered from kaolin and mica schists.

(c) United States Bureau of Mines' estimate.

(d) Sold or used by producers.

EXPORTS OF MICA

Exporting Country and Description	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unmanufactured (d) ..	5,472,000	1,693,000	1,136,016	11,778,928	12,622,400	5,725,420
Tanzania—						
Unmanufactured (a) ..	1,097,300	587,000	572,400	438,600	129,191	58,600
Zambia—						
Block or sheet .. ..	<i>n.a.</i>	2,808	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Waste .. ..	<i>n.a.</i>	4,383	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Hong Kong—						
Manufactured .. ..	—	—	336	—	<i>n.a.</i>	<i>n.a.</i>
India—						
Blocks .. ..	3,639,831	3,553,851	3,816,053	3,945,000	3,794,154	1,721,000
Splittings .. ..	14,138,243	12,184,948	13,596,627	14,740,599	11,814,569	5,359,000
Condenser Films ..	211,644	200,621	188,826	236,752	246,917	112,000
Powder, scrap, waste ..	49,178,511	30,736,845	31,276,631	26,863,874	46,276,624	20,602,000
Manufactured (c) ..	322,834	503,018	398,860	474,432	390,480	117,119
Singapore—						
Unmanufactured (a) ..	1,300	—	22	—	50,064	22,709
Manufactured .. ..	845	721	641	128	136	62
Australia (b)—						
Unmanufactured .. ..	64,991	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Manufactured .. ..	(£19,898)	(£21,600)	(£15,770)	(£18,666)	(£12,600)	(£12,600)
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured .. ..	23,400	4,600	70,300	6,600	10,803	4,900
Manufactured .. ..	32,000	21,200	22,900	52,700	51,588	23,400
Belgium-Luxemburg						
E.U.—						
Unmanufactured (a) ..	73,200	193,600	162,040	153,900	222,226	100,800
Manufactured .. ..	442,700	655,900	873,700	1,030,881	1,145,081	519,400
Denmark—						
Ground .. ..	51,000	66,138	81,571	48,501	92,594	42,000
Manufactured .. ..	2,000	—	—	—	6,614	3,000
Finland—						
Unmanufactured (a) ..	55,000	55,000	97,000	123,000	—	—
France—						
Unmanufactured (a) ..	62,000	86,000	146,000	174,000	238,099	108,000
Ground .. ..	1,550,000	1,905,000	3,159,000	2,273,000	3,048,992	1,383,000
Manufactured .. ..	547,000	721,000	930,300	1,019,000	1,296,318	588,000
Germany (Federal)—						
Unmanufactured (a) ..	1,350,000	1,506,000	1,444,000	2,000,000	1,848,355	838,400
Manufactured .. ..	202,360	298,200	445,600	680,100	383,221	173,826
Italy—						
Ground .. ..	968,000	567,200	782,600	214,700	154,544	70,100
Waste .. ..	315,000	155,600	105,600	1,652,400	813,946	369,200
Manufactured .. ..	76,000	58,860	42,900	53,900	91,600	41,549
Netherlands—						
Unmanufactured .. ..	168,000	220,500	211,600	198,400	165,320	75,000
Manufactured .. ..	4,000	6,600	4,400	4,400	35,274	16,000
Norway—						
Unmanufactured .. ..	9,458,000	9,886,000	10,613,052	8,417,248	9,541,604	4,328,000
Waste .. ..	—	—	—	93,000	44,092	20,000
Spain—						
Manufactured .. ..	31,802	46,425	63,963	50,706	196,211	89,000
Sweden—						
Unmanufactured .. ..	—	—	6,600	13,200	13,228	6,000

(a) Including waste.

(d) Including splittings and waste.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

EXPORTS OF MICA (cont.)

Exporting Country and Description	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Switzerland—</b>						
Unmanufactured (a) ..	11,643	131,537	235,749	204,543	162,851	73,868
Manufactured .. ..	354,406	459,972	371,567	477,100	567,847	257,571
<b>Angola—</b>						
Unmanufactured ..	} 33,000	—	—	—	139,257	63,165
Waste .. ..						
<b>Malagasy Republic—</b>						
Unmanufactured ..	2,109,698	2,242,736	3,120,017	5,112,132	2,647,751	1,200,990
<b>Mozambique—</b>						
Unmanufactured ..	13,000	109,528	r 690,933	451,948	1,673,308	759,000
<b>South Africa—</b>						
Unmanufactured (a) ..	3,446,000	16,510,416	20,712,000	21,296,000	14,956,100	6,783,900
<b>United States—</b>						
Unmanufactured ..	} 10,810,194	14,301,524	27,014,321	11,810,008	17,459,607	7,919,500
Ground .. ..						
Manufactured .. ..	537,556	526,690	474,509	638,830	1,260,780	571,880
<b>Argentina—</b>						
Unmanufactured ..	732,856	690,600	1,156,126	728,213	1,990,809	903,010
<b>Brazil—</b>						
Unmanufactured ..	4,172,724	1,317,542	1,345,638	3,963,911	4,087,343	1,853,988
Manufactured .. ..	9,233	12,070	28,274	12,754	16,744	7,595
<b>Japan—</b>						
Unmanufactured (a) ..	379,000	224,872	229,281	218,257	103,617	46,999
Manufactured .. ..	77,640	201,573	49,743	95,100	72,918	33,075

(a) Including waste.

IMPORTS OF MICA

Importing Country and Description	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Block .. .. .	(c) 999,000	264,000	565,152	831,040	819,840	371,873
Splittings .. .. .	1,516,000	898,000	1,647,744	2,082,528	1,274,560	578,131
Ground and waste .. .. .	13,104,000	11,101,000	15,967,504	22,206,800	27,182,400	12,329,733
Manufactured .. .. .	279,000	321,000	567,280	562,128	540,176	245,020
Kenya—						
Unmanufactured (a) .. .. .	33,700	48,400	71,100	50,300	54,700	24,800
Malawi—						
Manufactured .. .. .	8,160	12,240	12,160	11,565	8,998	4,081
Mauritius—						
Unmanufactured .. .. .	110	481	569	1,797	1,323	600
Manufactured .. .. .	172	11	218	761	66	30
Tanzania—						
Unmanufactured (a) .. .. .	21,800	21,800	51,900	28,600	40,124	18,200
Zambia—						
Block or sheet .. .. .	13,250	28	—	—	n.a.	n.a.
Canada—						
Unmanufactured .. .. .	6,368,300	6,984,700	6,570,300	7,601,400	7,544,100	3,421,900
Manufactured .. .. .	(£227,000)	(£245,072)	(£205,812)	(£166,000)	(£111,000)	(£111,000)
Jamaica—						
Unmanufactured .. .. .	225,781	412,084	247,246	185,992	n.a.	n.a.
Manufactured .. .. .	697	1,933	1,418	1,419	n.a.	n.a.
Trinidad and Tobago—						
Unmanufactured (a) .. .. .	55,700	55,600	58,900	24,300	59,400	26,900
Manufactured .. .. .	432	29	508	—	236	107
Hong Kong—						
Unmanufactured (a) .. .. .	(c) 89,824	(c) 16,800	(c) 6,608	(c) 97,776	(c) 95,088	(c) 43,131
Manufactured .. .. .	27,000	36,064	12,992	20,832	32,928	14,936
India—						
Manufactured .. .. .	9,389	1,874	2,586	2,892	8,092	17,840
Malaysia (West)—						
Unmanufactured (a) .. .. .	11,600	3,450	16,643	21,952	6,653	3,018
Manufactured .. .. .	10,441	4,570	8,702	11,407	37,015	16,790
Sarawak—						
Unmanufactured (a) .. .. .	38,640	—	—	n.a.	n.a.	n.a.
Singapore—						
Unmanufactured (a) .. .. .	6,030	14,358	87,091	736,960	1,120,403	508,206
Manufactured .. .. .	4,682	2,860	2,539	2,680	3,942	1,788
Australia (b)—						
Block or sheet .. .. .	75,225	42,903	40,232	26,734	22,562	10,234
Splittings .. .. .	223,749	172,071	199,200	208,355	153,600	69,672
Ground .. .. .	725,289	757,220	719,259	380,243	541,858	245,783
Waste .. .. .	872,844	867,047	1,409,001	1,261,910	1,214,975	551,104
Manufactured .. .. .	(£10,000)	(£14,000)	(£22,431)	(£31,000)	(£37,799)	(£37,799)
New Zealand (b)—						
Unmanufactured (a) .. .. .	(£11,175)	(£12,246)	(£13,285)	(£16,452)	n.a.	n.a.
Manufactured .. .. .	(£29,049)	(£30,161)	(£19,803)	(£44,704)	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured (a) .. .. .	842,400	522,900	964,302	661,607	659,600	299,200
Manufactured .. .. .	59,700	71,000	70,327	81,791	103,200	46,800
Belgium-Luxemburg						
E.U.—						
Unmanufactured (a) .. .. .	2,650,600	2,958,400	4,016,381	6,523,257	4,797,900	2,176,300
Manufactured .. .. .	88,200	37,700	93,917	67,992	189,800	86,100

(a) Including waste.

(b) Years ended June 30 of that stated.

(c) Excess of re-exports. United Kingdom imports, before deduction of re-exports, in 1966 were 1,140,000 lb. avdp.

## IMPORTS OF MICA (cont.)

Importing Country and Description	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Denmark—						
Unmanufactured ..	22,000	13,228	} 888,463	776,019	946,000	429,000
Ground .. .. .	650,000	751,776				
Manufactured ..	112,000	138,891	255,736	487,217	258,000	117,000
Finland—						
Unmanufactured (a) ..	1,638,059	1,095,543	1,386,646	1,532,197	1,658,100	752,100
Manufactured .. ..	46,000	52,911	61,729	68,342	60,800	27,600
France—						
Unmanufactured (a) ..	12,577,000	8,051,000	6,355,900	7,171,600	7,306,000	3,314,000
Ground .. .. .	4,063,000	4,259,000	5,041,900	3,650,900	3,644,000	1,653,000
Manufactured .. ..	120,000	123,000	152,000	185,200	190,000	86,000
Germany (Federal)—						
Unmanufactured (a) ..	12,075,000	12,474,000	17,858,000	18,864,700	20,080,600	9,108,400
Manufactured .. ..	330,300	414,990	639,000	1,010,800	996,392	451,956
Greece—						
Unmanufactured ..	65,389	48,713	94,775	95,936	140,734	63,836
Manufactured .. ..	20,507	18,924	9,288	11,855	23,137	10,495
Italy—						
Unmanufactured (a) ..	1,627,231	3,848,494	2,641,124	3,638,284	1,315,198	596,564
Ground .. .. .	2,557,362	2,273,638	3,074,068	1,996,724	1,997,600	906,100
Manufactured .. ..	256,398	300,049	357,590	509,267	472,649	214,390
Netherlands—						
Unmanufactured (a) ..	1,810,000	2,061,322	3,721,402	2,400,833	2,912,000	1,321,000
Manufactured .. ..	123,000	119,050	125,663	141,096	141,000	64,000
Norway—						
Unmanufactured ..	337,000	148,000	723,000	2,873,000	4,224,000	1,916,000
Waste .. .. .	10,644,000	10,598,000	11,675,000	5,406,000	5,545,000	2,515,000
Manufactured .. ..	44,000	86,000	79,000	115,000	68,000	31,000
Poland—						
Unmanufactured ..	2,282,000	2,332,000	2,482,400	2,621,200	3,325,000	1,508,000
Portugal—						
Unmanufactured ..	190,700	203,928	122,079	308,647	432,000	196,000
Manufactured .. ..	90,610	16,535	13,228	30,865	15,400	7,000
Spain .. .. .	1,461,885	1,553,323	1,647,177	2,548,544	2,317,000	1,051,000
Sweden—						
Unmanufactured (a) ..	2,710,000	2,097,000	2,473,586	2,303,830	2,698,000	1,224,000
Manufactured .. ..	93,000	84,000	136,687	116,844	178,000	81,000
Switzerland—						
Unmanufactured (a) ..	1,381,818	1,411,020	1,407,576	1,668,054	1,700,085	771,491
Manufactured .. ..	206,763	471,749	415,847	276,782	568,583	257,905
U.S.S.R.—						
Unmanufactured ..	194,000	341,700	352,700	919,300	1,065,000	483,000
Yugoslavia—						
Unmanufactured ..	14,090	1,182,238	153,872	189,419	363,500	164,900
Manufactured .. ..	82,124	78,026	67,565	169,150	1,027,524	466,077
Algeria—						
Unmanufactured ..	n.a.	68,277	111,307	207,689	n.a.	n.a.
Malagasy Republic—						
Unmanufactured ..	478	5,710	n.a.	18,949	33,069	14,999
Morocco—						
Ground .. .. .	11,000	13,283	37,712	36,338	60,232	27,320
Manufactured .. ..	—	—	337	2,024	4,201	1,905
South Africa—						
Unmanufactured ..	838,100	421,500	468,700	390,748	n.a.	n.a.
Manufactured .. ..	(£217,211)	(£231,314)	(£202,698)	(£221,003)	(£181,337)	(£181,337)
Mica and micanite sheets	(b)	(b)	(b)	(b)	(b)	(b)
Sudan—						
Unmanufactured ..	7,000	n.a.	2,200	35,274	28,660	12,999
Manufactured .. ..	29	22	44	974	n.a.	n.a.

(a) Including waste.

(b) Included with "manufactured"

## IMPORTS OF MICA (cont.)

Importing Country and Description	Lb. avdp.					Kilogrms.
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Tunisia—						
Unmanufactured Ground .. .. .	18,490	33,770	n.a.	31,696	41,888	19,000
Manufactured .. .. .						
Guatemala—						
Unmanufactured Manufactured .. .. .	21,208 225	35,554 68	57,524 212	15,254 282	26,147 567	11,860 257
Mexico—						
Unmanufactured Waste .. .. .	527,520	412,181	725,320	589,889	584,289	265,029
United States—						
Unmanufactured Ground .. .. .	727,148 148,246	592,243 226,501	361,952 113,600	348,415 55,115	193,531 4,480	87,784 2,032
Waste .. .. .	3,642,348	1,016,097	3,097,165	3,077,850	6,047,947	2,743,303
Films and splittings Other manufactures	9,318,008 298,460	6,025,548 271,104	5,937,108 272,832	6,347,084 286,082	4,925,966 281,400	2,234,381 127,600
Argentina .. .. .	18,894	27,084	44,983	48,301	96,576	43,806
Brazil—						
Unmanufactured Manufactured .. .. .	3,955 49,582	220 49,134	65,206 19,978	21,663 16,330	n.a. 41,888	n.a. 19,000
Chile—						
Unmanufactured Manufactured .. .. .	88,000	42,329 13,854	134,482 4,631	n.a. n.a.	n.a. n.a.	n.a. n.a.
Colombia—						
Unmanufactured Manufactured .. .. .	319,121 38,638	261,819 40,605	472,142 38,420	n.a. n.a.	n.a. n.a.	n.a. n.a.
Peru—						
Ground and waste	296,143	354,371	156,834	305,852	n.a.	n.a.
Venezuela—						
Unmanufactured Manufactured .. .. .	863,182 14,974	1,075,565 12,341	792,473 8,014	445,798 20,590	n.a. n.a.	n.a. n.a.
Iran (a)—						
Unmanufactured Manufactured .. .. .	601,483	324,884	558,082	28,457	132,760	60,218
Japan—						
Unmanufactured Ground .. .. .	5,483,000	10,523,000	35,033,653	10,295,587	15,458,810	7,011,900
Waste .. .. .						
Manufactured .. .. .						
Lebanon—						
Unmanufactured	55,281	13,977	19,773	34,031	62,545	28,369
Philippine Republic—						
Unmanufactured	187,392	121,254	135,514	n.a.	n.a.	n.a.
Thailand—						
Unmanufactured Manufactured .. .. .	22,048 12,233	37,479 16,581	79,408 11,107	72,751 13,312	85,334 20,732	38,707 9,404
Turkey—						
Unmanufactured Manufactured .. .. .	18,023 39,110	98,822 55,126	58,202 31,405	36,171 38,821	n.a. n.a.	n.a. n.a.

(a) Years ended March 20 of year following that stated.



**MOLYBDENUM**  
**PRODUCTION OF MOLYBDENUM ORE**  
*(MoS<sub>2</sub> content or equivalent)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria .. .. .	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada (a) .. .. .	15,336	15,905	16,727	22,555	26,305	26,727
Australia .. .. .	2	—	—	76	97	99
<b>OTHER COUNTRIES</b>						
Norway .. .. .	398	479	393	472	412	418
U.S.S.R. (b) .. .. .	10,600	11,000	11,000	12,000	<i>n.a.</i>	<i>n.a.</i>
Mexico .. .. .	147	103	130	331	231	235
United States .. .. .	67,410	67,037	69,529	74,261	82,853	84,182
Chile .. .. .	7,016	7,781	6,325	7,941	10,006	10,017
Peru .. .. .	<i>r</i> 1,464	1,517	<i>r</i> 1,322	368	868	882
China (b) .. .. .	2,500	2,500	2,500	2,500	2,500	2,600
Japan .. .. .	465	473	461	440	725	737
Korea (South) .. .. .	491	457	331	213	189	192
Philippine Republic .. .. .	80	70	70	25	53	54
<b>TOTAL*</b> .. .. .	105,700	107,300	106,900	119,700	136,200	138,200

\*Excluding molybdenum ore known to have been produced in Roumania, Spain, Argentina, North Korea and Turkey.

(a) Shipments.

(b) United States Bureau of Mines' estimate.

## EXPORTS OF MOLYBDENUM ORE, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ferro-molybdenum ..	478	209	671	1,272	1,653	1,680
Canada—						
Ore and concentrates (MO content) (a) ..	<i>n.a.</i>	10,622	10,136	11,461	13,542	13,759
OTHER COUNTRIES						
France—						
Ferro-molybdenum ..	507	318	446	718	919	934
Oxide and molybdates ..	73	31	78	62	173	176
Germany (Federal)—						
Ore .. .. .	35	25	3	105	261	265
Metal .. .. .	94	74	112	163	258	262
Italy—						
Ferro-molybdenum ..	1	1	129	859	854	868
Netherlands—						
Metal .. .. .	153	90	86	112	135	137
Norway—						
Ore .. .. .	426	494	410	487	498	506
Sweden—						
Ferro-molybdenum ..	607	684	591	802	914	929
U.S.S.R.—						
Ferro-molybdenum ..	1,100	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Ore and concentrates (MoS <sub>2</sub> content) ..	64	<i>r</i> 19	<i>r</i> 42	141	—	—
United States—						
Ore and concentrates (MoS <sub>2</sub> content) ..	13,289	13,393	12,949	25,703	24,882	25,282
Metal, alloys and scrap ..	26	22	131	10	299	304
Ferro-molybdenum ..	982	684	385	650	899	914
Wire, powder and semi- fabricated .. .. .	94	253	88	479	252	257
Chile—						
Ore .. .. .	7,261	7,201	5,730	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Ore (MoS <sub>2</sub> content) ..	825	1,917	1,156	652	<i>n.a.</i>	<i>n.a.</i>
Korea (South)—						
Ore .. .. .	1,012	506	501	362	234	238
Philippine Republic—						
Concentrates .. .. .	<i>n.a.</i>	45	104	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Not recorded as a separate export item prior to 1967.

## IMPORTS OF MOLYBDENUM ORE, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	8,997	8,880	8,189	12,675	11,531	11,716
Metal .. .. .	67	84	105	107	163	166
Canada—						
Oxide .. .. .	297	202	607	34	33	34
Australia (a)—						
Oxide .. .. .	84	74	192	30	25	25
Ferro-molybdenum ..	244	193	182	85	243	247
OTHER COUNTRIES						
Austria—						
Oxide .. .. .	529	332	488	789	691	702
Ferro-molybdenum ..	10	5	30	20	2	2
Belgium-Luxemburg						
E.U.—						
Oxide .. .. .	15	29	7	42	36	37
Ferro-molybdenum ..	100	83	85	122	155	158
Denmark—						
Ferro-molybdenum ..	47	27	15	25	19	19
Finland—						
Ferro-molybdenum ..	124	102	103	143	226	230
France—						
Ore .. .. .	5,576	5,350	4,446	7,583	9,282	9,431
Metal and alloys .. ..	84	81	82	103	91	93
Oxide and molybdates..	79	32	82	128	88	90
Germany (Federal)—						
Ore .. .. .	9,802	9,420	11,770	18,730	15,724	15,976
Metal .. .. .	381	245	222	438	404	411
Hungary—						
Ferro-molybdenum ..	<i>n.a.</i>	<i>n.a.</i>	199	340	317	322
Italy—						
Ore .. .. .	1,974	2,479	2,401	3,353	4,575	4,648
Metal .. .. .	28	1	2	44	46	47
Ferro-molybdenum ..	722	797	625	870	858	872
Netherlands—						
Metal .. .. .	91	8	15	27	72	73
Ferro-molybdenum ..	87	55	34	61	38	39
Oxide and molybdates..	78	88	233	221	350	356
Poland—						
Concentrates .. .. .	244	156	437	590	277	282
Sweden—						
Ore .. .. .	3,950	3,414	2,085	(b) 6,509	(b) 7,371	(b) 7,489
Metal .. .. .	70	23	28	35	38	39
Ferro-molybdenum ..	1,611	932	1,191	1,615	1,683	1 701
United States—						
Metal .. .. .	35	1	1	—	2	2
Semi-fabricated .. ..	12	5	9	11	13	13
Japan—						
Ore and concentrates ..	7,220	8,648	9,388	12,044	14,882	15,121
Molybdenum metal .. ..	25	33	51	104	141	144
Ferro-molybdenum .. ..	64	489	108	124	504	512

(a) Years ended June 30 of that stated.

(b) Including roasted molybdenum concentrates.

**NICKEL**  
**PRODUCTION OF NICKEL ORE**  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia .. ..	<i>n.a.</i>	<i>n.a.</i>	1,480	3,940	(a) 4,900	(a) 5,000
Canada (b) .. ..	199,652	222,006	236,034	190,725	275,038	279,452
Australia .. ..	—	2,061	4,573	11,004	28,448	28,905
<b>TOTAL .. ..</b>	<b>200,000</b>	<b>224,000</b>	<b>240,600</b>	<b>205,300</b>	<b>308,400</b>	<b>313,400</b>
<b>OTHER COUNTRIES</b>						
Finland (c) .. ..	3,087	3,560	3,349	3,600	5,030	5,111
Greece .. ..	1,466	2,124	3,676	8,138	8,464	8,600
Poland .. ..	(a) 1,300	(a) 1,500	1,500	1,500	(a) 1,500	(a) 1,500
U.S.S.R. (d) .. ..	90,000	90,000	100,000	105,000	108,000	110,000
Morocco .. ..	384	(a) 370	300	300	140	142
South Africa .. ..	5,310	5,600	7,400	8,900	11,400	11,600
Cuba (a) (e) .. ..	26,000	30,357	33,170	34,643	34,640	35,200
United States (f) .. ..	11,819	13,049	13,530	13,943	13,678	13,894
Brazil (g) .. ..	(a) 1,362	1,054	1,060	1,100	2,466	2,506
Burma (g) .. ..	70	50	28	30	21	21
Indonesia .. ..	(a) 4,000	5,900	8,200	6,900	1,770	1,800
New Caledonia (h) .. ..	66,000	81,000	112,000	115,200	136,000	138,000
<b>TOTAL* .. ..</b>	<b>200,000</b>	<b>230,000</b>	<b>263,000</b>	<b>290,000</b>	<b>323,000</b>	<b>328,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>400,000</b>	<b>450,000</b>	<b>500,000</b>	<b>495,000</b>	<b>631,000</b>	<b>641,000</b>

\*Ores containing nickel are also produced in Albania and East Germany. Totals are approximate.

(a) United States Bureau of Mines' estimate.

(b) Refined nickel and nickel in oxide and salts plus nickel in matte exported.

(c) Nickel content of concentrates and nickel sulphate.

(d) Estimated. Source: Metallgesellschaft.

(e) Estimated nickel content of nickel oxide and sulphide.

(f) Metal from domestic ore plus nickel produced as a by-product in the electrolytic refining of copper (partly from imported blister copper).

Secondary metal was recovered in the United States as follows:

Year	Long tons	Year	Long tons	Tonnes
1966 .. ..	23,908	1969 .. ..	16,763	
1967 .. ..	18,510	1970 .. ..	20,678	21,010
1968 .. ..	12,554			

(g) Nickel content of nickel speiss.

(h) Content of dry ore mined. The estimated content of matte and ferro-nickel produced was:

Year	Long tons	Year	Long tons	Tonnes
1966 .. ..	33,881	1969 .. ..	39,166	
1967 .. ..	33,951	1970 .. ..	43,129	43,819
1968 .. ..	37,123			

(i) Content of ferro-nickel.

## EXPORTS OF NICKEL\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unwrought (a) ..	25,385	30,203	33,483	23,114	32,878	33,406
Semi-manufactures ..	3,822	4,494	} 11,575	11,933	11,464	11,648
do. alloys ..	4,206	4,973				
Scrap (a) ..	2,995	2,407	3,289	3,417	2,489	2,529
Nickel oxide ..	11	126	285	46	755	767
Canada—						
Matte or speiss (Ni content) ..	74,631	74,698	85,292	68,728	86,303	87,688
Unwrought ..	118,493	114,874	113,479	93,074	136,789	138,984
Scrap (a) ..	1,056	1,797	3,684	4,499	3,854	3,916
Semi-manufactures (a) ..	3,461	3,964	3,482	2,936	3,259	3,311
Nickel oxide (Ni content) ..	30,028	30,539	37,552	25,901	39,193	39,822
Hong Kong—						
Scrap ..	43	94	26	29	6	6
Australia (c) ..						
Unwrought and semi-manufactures (a) ..	255	n.a.	63	142	392	398
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Unwrought ..	172	23	46	265	189	192
do. alloys ..	15	—	13	455	188	191
Scrap ..	463	589	799	845	788	801
Semi-manufactures (a) (b) ..	259	266	205	835	464	472
Denmark—						
Unwrought ..	5	—	—	1	6	6
Scrap (a) ..	405	245	192	309	205	208
Finland—						
Unwrought ..	2,585	2,604	2,881	3,490	3,636	3,694
France—						
Matte and speiss ..	22	252	160	153	208	211
Unwrought ..	7,010	8,382	5,677	3,981	5,066	5,147
do. alloys ..	26	27	57	97	211	214
Scrap (a) ..	1,565	2,267	1,819	1,614	1,661	1,688
Semi-manufactures (a) ..	1,921	2,574	2,417	2,926	3,493	3,549
Germany (Federal)—						
Unwrought and scrap (a) ..	2,571	3,011	2,418	2,698	2,874	2,920
Semi-manufactures (a) ..	5,964	6,621	6,749	7,638	8,006	8,135
Greece—						
Unwrought ..	n.a.	n.a.	n.a.	n.a.	2	2
Italy—						
Semi-manufactures (a) ..	1,020	803	620	638	633	643
Netherlands—						
Scrap (a) ..	1,270	2,136	2,202	2,022	1,852	1,882
Semi-manufactures (a) ..	195	196	188	841	2,918	2,965
Norway—						
Unwrought ..	30,138	28,753	29,965	34,860	36,459	37,044
Scrap ..	130	84	178	199	174	177
Semi-manufactures (a) ..	216	235	197	201	163	166

\*In these tables the description "unwrought" nickel corresponds to item 683.1 of the Standard International Trade Classification (Revised) which excludes all electro-plating anodes. "Semi-manufactures" corresponds to S.I.T.C. (R) 683.2 and includes electro-plating anodes as well as sheets, bars, rods, etc.

(a) Including alloys.

(b) Excluding anodes.

(c) Years ended June 30 of that stated.

## EXPORTS OF NICKEL (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Unwrought .. ..	33	434	482	157	829	842
Scrap .. .. .	364	721	639	497	487	495
Semi-manufactures (a)	1,008	1,275	1,267	1,620	1,212	1,232
Switzerland—						
Unwrought and scrap (a)	675	583	647	1,197	1,151	1,170
Semi-manufactures (a)	994	935	1,279	1,397	1,078	1,095
South Africa—						
Unwrought .. ..	1,266	3,517	8,531	5,085	3,399	3,454
United States—						
Unwrought (a) .. ..	10,208	6,655	5,802	1,653	5,449	5,537
Semi-manufactures (a)	5,285	6,027	6,323	10,076	8,731	8,872
Scrap (a) .. .. .	5,247	12,404	14,949	16,097	11,651	11,838
Burma—						
Unwrought .. .. .	199	181	127	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ferro-nickel .. ..	186	5	616	2,264	—	—
Unwrought (a) .. ..	1	5	1	99	399	406
Semi-manufactures (a)	3,059	1,857	498	390	811	825
New Caledonia—						
Ore .. .. .	1,069,493	1,484,452	2,450,075	3,016,017	4,097,014	4,162,759
Matte .. .. .	19,372	16,411	19,684	19,684	19,584	19,899
Ferro-nickel .. ..	71,112	72,419	81,099	98,420	115,009	116,855

(a) Including alloys.

IMPORTS OF NICKEL\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ores and concentrates ..	55,270	57,487	57,461	45,094	72,207	73,366
Matte and other intermediate products of nickel metallurgy ..						
Unwrought .. ..						
do. alloys .. ..						
Semi-manufactures (a)						
Scrap (a) .. ..	23,763	23,286	23,368	15,400	33,991	34,537
Nickel oxide .. ..	361	690	218	399	512	520
Canada—	1,721	1,169	1,303	1,870	1,341	1,363
Ore, concentrates and Scrap (Ni content) ..	2,883	4,576	4,246	5,345	4,886	4,964
Unwrought and semi-manufactures (a)	643	608	512	374	1,370	1,392
Cyprus—						
Semi-manufactures (a)	23,819	12,781	14,271	9,278	26,498	26,923
Hong Kong—	28,256	11,630	13,434	15,016	12,901	13,108
Semi-manufactures (a)	2	9	12	5	8	8
India (c)—						
Unwrought .. ..	116	79	195	150	193	196
do. alloys .. ..	265	390	529	160	1,535	1,560
Scrap .. ..	113	339	401	456	690	701
Semi-manufactures (a)	298	(a) 580	(a) 542	(a) 226	(a) 133	(a) 135
Australia (b)—	567	1,234	1,524	638	1,421	1,444
Matte, speiss, etc. ..	456	136	315	584	671	682
Unwrought .. ..	972	980	1,602	1,642	1,316	1,337
do. alloys .. ..	319	707	684	289	149	152
Semi-manufactures (a)	793	1,141	965	890	837	851
New Zealand (b)—						
Unwrought (a) .. ..	53	46	24	105	n.a.	n.a.
Semi-manufactures (a)	228	368	181	168	n.a.	n.a.
Irish Republic—						
Unwrought (a) .. ..	13	28	41	14	25	25
Semi-manufactures (a)	101	270	406	442	505	513
<b>OTHER COUNTRIES</b>						
Austria—						
Matte and speiss .. ..	726	700	746	2,055	786	799
Unwrought (a) .. ..	2,210	1,862	2,359	2,035	2,414	2,453
Scrap (a) .. ..	117	123	225	80	57	58
Semi-manufactures (a)	559	516	551	931	1,264	1,284
Belgium-Luxemburg						
E.U.—						
Unwrought .. ..	1,194	1,020	1,267	1,288	1,418	1,441
do. alloys .. ..	167	273	183	490	1,222	1,242
Scrap (a) .. ..	550	1,232	1,945	2,150	2,420	2,459
Semi-manufactures (a)	657	968	1,050	1,554	1,222	1,242
Denmark—						
Unwrought .. ..	110	82	114	65	89	91
do. alloys .. ..	13	16	10	23	11	11
Semi-manufactures (a)	792	519	464	595	462	470

\*See footnote on p. 219 concerning the descriptions "unwrought" nickel and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

## IMPORTS OF NICKEL (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Finland—						
Unwrought (a) ..	249	238	128	101	197	200
France—						
Matte and speiss ..	12,963	18,322	13,173	12,996	17,904	18,191
Ferro-nickel .. ..	28,202	44,100	49,470	65,616	89,180	90,611
Unwrought .. ..	8,363	8,619	9,596	8,280	11,232	11,412
do. alloys .. ..	58	92	96	508	215	219
Scrap (a) .. ..	578	375	234	403	526	535
Semi-manufactures (a)	2,607	2,446	2,572	2,550	4,151	4,218
Germany (Federal)—						
Ore .. ..	5	239	1	184	226	230
Matte and speiss ..	6,069	3,978	2,555	2,208	4,179	4,246
Unwrought (a) ..	23,439	27,809	30,865	27,966	38,167	38,780
Scrap (a) .. ..	2,700	6,486	8,581	15,085	7,598	7,720
Semi-manufactures (a)	1,736	1,877	3,100	3,263	3,415	3,470
Italy—						
Matte and speiss ..	1,717	1,776	4,292	4,481	5,103	5,185
Unwrought (a) ..	10,983	11,870	13,336	10,595	12,596	12,798
Scrap .. ..	957	1,538	1,314	531	441	448
Semi-manufactures (a)	1,571	1,768	1,842	2,510	2,689	2,732
Nickel oxide .. ..	131	139	180	196	2,151	2,186
Netherlands—						
Unwrought .. ..	1,590	n.a.	1,736	1,597	2,835	2,881
do. alloys .. ..	64	231	166	188	612	622
Scrap (a) .. ..	1,042	1,502	1,369	1,467	2,559	2,600
Semi-manufactures (a)	1,892	2,181	2,827	3,499	4,435	4,506
Nickel oxide .. ..	65	71	209	898	1,279	1,300
Norway—						
Matte (copper-nickel) ..	60,405	52,673	76,488	68,734	93,081	94,575
Scrap (a) .. ..	1,845	187	686	657	240	244
Semi-manufactures (a)	266	344	301	299	303	308
Portugal—						
Unwrought and semi-manufactures ..	238	203	432	325	368	374
Spain—						
Matte and speiss ..	463	241	529	481	349	355
Unwrought (a) ..	1,153	1,392	1,521	2,040	2,527	2,567
Semi-manufactures (a)	1,089	1,049	1,425	1,682	1,429	1,452
Sweden—						
Matte and speiss ..	2,276	964	1,015	1,240	2,105	2,139
Unwrought .. ..	12,072	12,127	13,433	12,392	18,057	18,347
do. alloys .. ..	302	347	347	451	365	371
Scrap (a) .. ..	1,277	1,358	2,126	3,336	1,246	1,266
Semi-manufactures (a)	936	872	971	1,791	4,244	4,312
Switzerland—						
Unwrought and scrap (a)	1,387	1,307	1,605	2,263	2,291	2,328
Semi-manufactures (a)	1,088	1,095	947	1,258	1,782	1,811
Yugoslavia—						
Unwrought .. ..	354	396	710	788	514	522
Semi-manufactures (a)	121	522	708	552	695	706
Mexico—						
Unwrought .. ..	93	70	180	149	482	490
Semi-manufactures ..	898	1,310	920	1,391	1 115	1,133
United States—						
Ore and matte .. ..	—	—	1	3	16	16
Unwrought and scrap ..	101,586	102,945	98,333	91,821	106,714	108,426
Semi-manufactures ..	4,129	1,165	3,329	3,073	3,438	3,493
Nickel oxide .. ..	6,884	5,472	5,646	3,479	610	5,700
Argentina—						
Unwrought .. ..	201	130	319	287	319	325
Semi-manufactures ..	280	236	227	130	349	355

(a) Including alloys.



## IMPORTS OF NICKEL (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Brazil—</b>						
Unwrought (a) ..	468	381	445	315	645	655
Semi-manufactures (a) ..	397	358	776	676	755	767
<b>Chile—</b>						
Unwrought .. ..	<i>n.a.</i>	43	52	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Unwrought (a) ..	18	6	22	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a) ..	170	86	116	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Formosa—</b>						
Unwrought (a) ..	129	143	365	204	286	291
<b>Iran—</b>						
Semi-manufactures ..	160	218	121	55	135	138
<b>Japan—</b>						
Ore .. ..	1,249,886	1,634,360	2,669,371	3,341,793	4,596,554	4,670,316
Matte .. ..	4,974	9,620	12,398	16,484	18,011	18,301
Scrap (a) .. ..	4,839	10,650	572	1,302	1,402	1,425
Ferro-nickel .. ..	670	2,782	1,129	308	4,650	4,725
Unwrought (a) ..	3,034	12,082	3,597	6,730	11,249	11,430
Semi-manufactures (a) ..	629	2,016	1,261	1,223	1,495	1,519
<b>Philippine Republic—</b>						
Semi-manufactures (a) ..	<i>n.a.</i>	46	72	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Turkey—</b>						
Semi-manufactures (a) ..	77	211	144	84	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

**NITROGEN COMPOUNDS**  
**PRODUCTION OF NITROGEN COMPOUNDS\***

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a)— Nitrogenous fertilizers expressed as 25% NH <sub>3</sub> .. .. .	3,188,300	3,683,900	3,986,900	3,705,800	3,450,000	3,505,000
Actual ammonium sulphate .. .. .	913,600	824,400	776,800	716,400	508,400	516,600
Canada— Ammonium sulphate .. .. .	307,125	258,444	266,025	291,269	305,744	310,651
Ammonium nitrate .. .. .	553,735	628,871	670,000	625,279	693,407	704,536
Trinidad (b)— (N content) Nitrogen fertilizers .. .. .	37,200	45,800	49,000	(e) 74,000	74,000	75,000
India— Ammonium sulphate (N content) .. .. .	85,000	82,300	109,000	136,354	111,296	113,082
Pakistan (c)— Ammonium sulphate .. .. .	40,456	45,058	45,815	46,228	56,596	57,504
Australia— Ammonium sulphate .. .. .	111,000	77,680	86,720	115,060	135,190	137,360
<b>OTHER COUNTRIES</b>						
Austria (b)— (N content) Nitrogen fertilizers .. .. .	207,736	230,816	248,561	251,546	244,132	248,050
Belgium— (N content) Synthetic ammonia, etc. .. .. .	393,655	404,887	447,759	n.a.	n.a.	n.a.
Ammonium sulphate .. .. .	13,819	13,121	11,905	n.a.	n.a.	n.a.
Mixed fertilizers .. .. .	70,471	78,670	91,720	n.a.	n.a.	n.a.
Technical products .. .. .	17,563	17,326	45,884	n.a.	n.a.	n.a.
Bulgaria— (N content) Nitrogen fertilizers .. .. .	292,700	348,000	496,000	577,000	641,000	651,000
Czechoslovakia— Nitrogen fertilizers (N content) .. .. .	246,566	241,000	257,000	294,000	318,767	323,882
Finland (b)— (N content) Cyanamide .. .. .	86	50	33	29	—	—
Ammonium nitrate .. .. .	28,261	28,895	29,808	30,908	32,104	32,619
Calcium nitrate .. .. .	3,368	3,536	4,654	5,322	5,409	5,496
Other nitrogen fertilizers .. .. .	43,351	43,863	24,098	21,542	22,463	22,823
Mixed fertilizers .. .. .	17,044	28,951	40,998	52,934	90,761	92,217
France (d)— (N content) Ammonium sulphate .. .. .	84,500	80,400	67,700	56,940	45,244	45,970
Cyanamide .. .. .	2,350	3,070	3,430	3,580	3,267	3,320
Sodium nitrate .. .. .	800	900	700	650	n.a.	n.a.
Calcium nitrate .. .. .	32,100	n.a.	n.a.	n.a.	n.a.	n.a.
Germany (Federal)— Chemical nitrogen (N content) Fertilizer .. .. .	1,426,323	1,538,145	1,542,511	1,586,385	1,543,197	1,567,961

\*Includes by-product ammonium sulphate which is separately recorded as far as available on pages 84-86.

(a) Source: British Sulphate of Ammonia Federation.

(c) West Pakistan.

(b) Years ended June 30 of the year stated.

(d) Years ended April 30 of the year stated.

(e) Estimated.

## PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Germany (East)— (N content)						
Ammonium sulphate	161,251	157,731	163,955	150,223	164,427	167,066
Cyanamide ..	16,685	15,502	11,996	10,826	n.a.	n.a.
Lime ammonium nitrate ..	123,427	117,643	143,021	153,028	120,774	122,712
Potassium ammonium nitrate ..	17,658	15,595	11,000	15,600	n.a.	n.a.
Hungary—						
Nitrogen fertilizers ..	803,000	903,000	1,177,000	1,441,000	1,682,000	1,709,000
Iceland (a)—						
Ammonium nitrate (N content) ..	8,392	7,993	8,024	8,024	8,028	8,157
Italy—						
Ammonium sulphate ..	1,609,749	1,699,476	1,475,561	1,410,181	1,199,746	1,218,999
Ammonium sulpho- nitrate ..	59,211	31,040	97,337	42,436	82,287	83,608
Cyanamide ..	121,439	114,638	100,315	92,776	90,500	91,952
Sodium nitrate ..	6,951	8,667	8,357	10,269	10,805	10,978
Potassium nitrate ..	13,144	25,812	21,757	11,458	8,917	9,060
Calcium nitrate ..	315,769	324,590	297,271	238,805	256,085	260,195
Ammonium nitrate ..	654,364	745,202	846,512	665,806	636,801	647,020
Di-ammonium phos- phate ..	487,161	417,321	450,638	468,049	498,680	506,682
Ammonium phosphate						
Netherlands (a)— (N content)						
Ammonium sulphate ..	77,756	79,144	91,308	93,315	107,390	109,113
Ammonium nitrate ..	258,751	302,810	352,094	352,544	350,569	356,195
Calcium nitrate ..	22,047	23,274	22,488	24,601	25,324	25,730
Norway—						
Cyanamide ..	4,392	4,496	3,753	3,383	n.a.	n.a.
Ammonium nitrate ..	22,270	23,053	24,692	31,906	n.a.	n.a.
Calcium nitrate ..	1,166,284	785,444	778,381	866,639	n.a.	n.a.
Lime ammonium nitrate	39,821	109,181	112,965	81,915	n.a.	n.a.
Poland—						
Ammonium sulphate ..	246,000	254,000	277,000	276,000	283,000	288,000
"Saletzrak" ..	675,000	726,000	780,000	776,000	890,000	904,000
Portugal—						
Cyanamide ..	9,850	10,036	11,672	11,392	11,177	11,356
Ammonium sulphate ..	247,649	205,433	231,894	199,082	194,120	197,235
Ammonium nitrate ..	200,200	225,023	223,267	279,183	305,940	310,850
Calcium nitrate ..	14,271	5,033	7,567	21,786	18,243	18,536
Roumania—						
Nitrogen fertilizers (N content) ..	260,063	366,383	414,069	478,300	637,000	647,000
Spain— (N content)						
Cyanamide ..	850	1,597	1,570	1,870	2,354	2,392
Lime ammonium nitrate	104,400	114,444	131,936	125,683	158,858	161,407
Ammonium sulphate ..	151,836	182,285	200,477	111,314	159,398	161,956
Ammonium nitrate ..	13,133	19,191	18,946	40,775	n.a.	n.a.
Ammonium sulpho- nitrate ..	23,419	26,179	34,946	36,416	30,471	30,960
Sweden—						
Ammonium nitrate ..	18,750	22,655	25,011	25,312	n.a.	n.a.
Ammonium sulphate ..	8,761	10,275	9,195	9,667	n.a.	n.a.
Cyanamide ..	16,305	20,960	20,835	23,316	n.a.	n.a.
Lime ammonium nitrate	202,814	212,343	238,324	215,944	n.a.	n.a.
Mixed fertilizers ..	235,369	323,550	368,230	374,564	n.a.	n.a.

(a) Years ended June 30 of the year stated.

## PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES (cont.)</b>						
Switzerland (a)—						
(N content)						
Cyanamide .. ..	2,400	3,200	3,400	3,400	3,000	3,000
Ammonium sulphate	9,300	9,300	7,900	6,400	2,500	2,500
Ammonium nitrate ..	10,000	13,400	14,800	14,300	14,300	14,500
Calcium nitrate ..	3,700	3,500	3,500	3,000	2,800	2,800
Mixed fertilizers ..	2,800	3,000	3,400	3,700	3,800	3,800
U.S.S.R.—						
Nitrogen fertilizers						
(N content) .. ..	3,050,000	3,700,000	3,800,000	4,330,000	n.a.	n.a.
Yugoslavia—						
Ammonium nitrate ..	7,000	7,366	8,557	8,484	6,305	6,406
Ammonium sulphate ..	12,251	12,598	11,986	759,000	1,311,000	1,332,000
Cyanamide .. ..	5,016	7,290	4,796			
Lime ammonium nitrate	474,000	477,000	572,800			
Egypt—						
Ammonium nitrate ..	385,461	420,560	433,051	n.a.	n.a.	n.a.
Calcium nitrate ..	256,614	188,973	165,471	25,300	n.a.	n.a.
Ammonium sulphate ..	96,260	73,259	48,296	9,277	n.a.	n.a.
South Africa—						
Nitrogen fertilizers						
(N content) .. ..	63,500	88,400	141,600	220,400	236,000	240,000
Mexico—						
Ammonium sulphate ..	210,856	225,609	330,874	396,906	391,000	397,300
Ammonium nitrate ..	143,859	157,078	161,600	156,800	146,700	149,100
United States—						
Sulphate equivalent of ammonia produced (coke-ovens) ..	769,649	745,000	685,000	654,000	n.a.	n.a.
Actual ammonium sulphate (coke-ovens)	681,938	658,000	626,000	601,000	569,000	578,000
Actual ammonium sulphate (synthetic plants)	1,886,000	1,730,000	1,787,000	1,724,000	n.a.	n.a.
Anhydrous ammonia (synthetic plants) ..	9,484,364	10,893,000	10,821,000	11,351,000	n.a.	n.a.
Ammonium nitrate, original .. ..	4,479,000	5,096,000	5,122,000	4,994,000	n.a.	n.a.
Ammonium phosphate	3,313,000	5,088,000	3,687,000	4,011,000	n.a.	n.a.
Brazil—						
Ammonium sulphate ..	12,205	12,281	10,231	7,298	6,707	6,815
Lime ammonium nitrate	18,954	25,431	26,104	18,008	21,208	21,548
Chile—						
Sodium and potassium nitrate (natural) ..	1,047,081	860,000	668,143	769,332	663,207	673,850
Peru (a)—						
Nitrogen fertilizers						
(N content) (c) ..	42,700	(b) 59,000	28,000	25,000	30,000	30,000
Formosa—						
Cyanamide .. ..	11,440	5,695	n.a.	n.a.	n.a.	n.a.
Ammonium sulphate ..	283,037	325,587	376,168	411,000	392,000	398,000
Nitro-phosphate ..	5,118	3,809	n.a.	n.a.	n.a.	n.a.
Nitro-chalk .. ..	42,382	63,188	74,119	54,000	45,000	46,000
Israel—						
Ammonium sulphate ..	75,958	66,660	77,642	79,731	66,753	67,824
Japan—						
Ammonium sulphate ..	2,612,000	2,678,000	2,672,000	2,524,988	n.a.	n.a.
Cyanamide .. ..	372,000	343,502	326,923	308,758	270,793	275,138
Ammonium nitrate ..	76,400	78,359	94,951	n.a.	n.a.	n.a.
Ammonium chloride ..	549,540	611,076	771,822	835,672	n.a.	n.a.
Philippine Republic (a)—						
(N content)						
Ammonium sulphate	(b) 16,000	(b) 25,000	(b) 40,000	(b) 45,000	(b) 50,000	(b) 50,000
Ammonium phosphate						

(a) Years ended June 30 of the year stated.

(b) Estimated.

(c) Including guano.

PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Turkey—						
Ammonium sulphate ..	91,011	84,900	79,224	89,547	n.a.	n.a.
Ammonium nitrate ..	69,977	73,276	63,777	n.a.	n.a.	n.a.

In addition, natural nitrate of potash is known to have been produced in India and Spain and nitrified earth in China.

EXPORTS OF NITROGEN COMPOUNDS

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ammonium sulphate ..	339,010	290,834	330,437	291,907	<i>n.a.</i>	<i>n.a.</i>
Ammonium chloride ..	11,818	9,601	12,504	13,515	14,444	14,676
Other manufactured nitrogen fertilizers ..	17,544	75,988	8,971	4,713	8,191	8,322
Anhydrous and liquid ammonia .. ..	6,306	15,263	24,606	30,003	23,939	24,323
Canada—						
Anhydrous ammonia ..	<i>n.a.</i>	54,865	74,618	134,991	156,260	158,768
Ammonium sulphate ..	(£2,747,264)	(£2,275,520)	(£3,014,723)	(£2,858,000)	(£3,037,000)	(£3,037,000)
Ammonium nitrate ..	(£2,986,401)	(£3,259,519)	(£4,701,688)	(£5,026,000)	(£6,382,000)	(£6,382,000)
Nitrogen-phosphate fertilizers ..	(£7,558,541)	(£8,978,193)	(£9,930,240)	(£11,338,000)	(£15,278,000)	(£15,278,000)
Other nitrogen fertilizers	(£4,591,045)	(£5,331,488)	(£7,271,641)	(£9,012,000)	(£2,421,000)	(£2,421,000)
Trinidad and Tobago—						
Ammonium sulphate ..	115,054	108,173	46,271	49,346	37,999	38,609
India (a)—						
Potassium nitrate ..	6	—	9	19	11	11
Malaysia (West)—						
Nitrogen fertilizers ..	841	276	107	1,081	65	66
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Potassium nitrate ..	—	—	—	40	3	3
Sodium nitrate ..	18	43	422	154	1,409	1,432
Calcium nitrate (b) ..	2	27	394	897	25	25
Ammonium sulphate (b)	48,366	55,567	76,076	71,993	74,188	75,379
Ammonium chloride ..	77	18	26	15	8	8
Ammonium nitrate (b)	23,776	10,320	13,867	22,036	27,377	27,816
Cyanamide (b) ..	4,368	3,149	3,828	3,436	5,831	5,925
Anhydrous ammonia ..	53,692	60,205	145,276	222,944	129,483	131,561
Bulgaria—						
Nitrogen fertilizers ..	18,668	44,634	127,224	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France—						
Potassium nitrate ..	1,939	2,773	2,426	4,365	3,838	3,900
Sodium nitrate ..	686	1,011	1,527	1,022	637	647
Calcium nitrate ..	31,202	28,590	29,682	28,129	20,402	20,729
Ammonium sulphate ..	238,641	259,910	114,820	73,905	49,466	50,260
Ammonium chloride ..	176	1,215	2,483	3,022	<i>n.a.</i>	<i>n.a.</i>
Ammonium nitrate ..	63,790	63,121	79,574	112,802	121,615	123,567
Cyanamide ..	1,111	705	1,393	3,199	1,689	1,716
Anhydrous ammonia ..	34,468	12,428	7,075	50,945	182,582	185,512
Germany (Federal)—						
Potassium nitrate ..	14,033	16,688	14,949	28,955	29,232	29,701
Sodium nitrate ..	2,358	1,314	2,097			
Calcium nitrate ..	94,796	58,972	13,007	40,820	48,829	49,613
Ammonium nitrates ..	563,366	688,020	702,608	692,104	450,420	457,648
Other nitrogen fertilizers	711,342	911,942	809,375	785,651	734,251	746,034
Germany (East)—						
Nitrogen fertilizers (b)	47,503	69,732	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Anhydrous ammonia ..	977	904	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Greece—						
Anhydrous ammonia ..	6,086	17,336	14,426	34,288	16,368	16,631
Italy—						
Potassium nitrate ..	2,476	1,504	1,690	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sodium nitrate ..	111	275	25	25	15	15
Calcium nitrate ..	396	1,482	<i>n.a.</i>	—	2	2
Ammonium nitrate ..	206,249	237,289	233,859	145,221	122,050	124,009
Ammonium sulphate ..	754,055	900,260	543,321	656,974	514,274	522,527
Cyanamide ..	<i>n.a.</i>	49	—	—	194	197

(a) Years ended March 31 following that stated.

(b) N content.

EXPORTS OF NITROGEN COMPOUNDS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Netherlands—</b>						
Potassium nitrate ..	639	302	83	47	271	275
Sodium nitrate ..	610	948	2,615	1,690	1,016	1,032
Calcium nitrate ..	7,621	6,714	9,330	9,670	7,933	8,060
Ammonium sulphate ..	47,552	89,952	91,977	88,286	95,574	97,108
Ammonium chloride ..	156	116	31	67	198	201
Ammonium nitrate ..	37,773	58,312	83,834	83,021	67,353	68,434
Lime ammonium nitrate						
Anhydrous ammonia ..	37,845	80,979	125,856	192,254	364,949	370,805
<b>Norway—</b>						
Calcium nitrate ..	1,005,686	707,423	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium nitrate ..	5,412	5,196	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Cyanamide ..	1,241	1,573	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Anhydrous ammonia ..	9	2	—	—	<i>n.a.</i>	<i>n.a.</i>
<b>Poland—</b>						
Ammonium chloride ..	4,326	4,001	3,980	3,626	3,474	3,530
Nitrogen fertilizers ..	41,000	84,000	156,000	319,000	446,830	454,000
<b>Portugal—</b>						
Ammonium sulphate ..	37,106	43,903	17,754	3,217	3,121	3,171
Ammonium nitrate ..	30,240	43,581	32,905	54,990	54,762	55,641
Sodium nitrate ..	—	1	—	52	122	124
Calcium nitrate ..	3,614	4,814	5,117	4,654	10,419	10,586
<b>Sweden—</b>						
Ammonium nitrate ..	1,520	3,019	1,639	1,986	3,733	3,793
<b>Switzerland—</b>						
Potassium and sodium nitrates (purified) ..	4	4	5	8	1	1
Ammonium sulphate, etc. ..	31,271	21,904	21,354	9,345	—	—
<b>U.S.S.R.—</b>						
Ammonium nitrate ..	71,000	125,486	194,774	149,000	136,608	138,800
Ammonium sulphate ..	488,000	682,843	737,269	774,500	868,857	882,800
<b>Yugoslavia—</b>						
Ammonium nitrate ..	1,057	<i>n.a.</i>	<i>n.a.</i>	10	6,693	6,800
Lime ammonium nitrate	4,921	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,476	1,500
Cyanamide ..	975	1,044	774	<i>n.a.</i>	685	696
<b>United States—</b>						
Sodium nitrate ..	562	246	1,030	629	1,684	1,712
Ammonium nitrate ..	77,675	36,564	79,396	99,591	59,473	60,428
Ammonium sulphate ..	1,437,553	935,053	1,245,610	724,929	466,400	473,885
Other nitrogen fertilizers ..	22,000	24,355	22,776	26,976	17,203	17,480
Nitrogen phosphatic fertilizers ..	689,000	1,134,000	1,133,929	841,071	912,373	927,014
Anhydrous ammonia (a)	201,753	386,486	714,469	274,310	216,977	220,459
<b>Chile—</b>						
Sodium nitrate ..	731,857	510,802	451,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Potassium nitrate ..	105,349	97,374	57,429	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Israel—</b>						
Anhydrous ammonia ..	<i>n.a.</i>	<i>n.a.</i>	18	6	4	4
<b>Japan—</b>						
Cyanamide ..	48,025	160	2,682	1,119	593	603
Ammonium nitrate ..	13,587	11,530	17,666	29,697	35,586	36,158
Ammonium chloride ..	302,097	379,794	425,505	474,766	493,656	501,578
Ammonium sulphate ..	1,172,469	1,591,605	1,439,697	1,027,715	1,015,675	1,031,974
Anhydrous ammonia ..	5,760	7,781	12,229	170	25,064	25,467
Other nitrogen fertilizers	62,001	27,968	78,343	2,119	3,732	3,792

(a) Ammonia content.

## IMPORTS OF NITROGEN COMPOUNDS

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Natural sodium nitrate ..	19,143	13,414	14,094	12,570	12,461	12,661
Manufactured fertilizers—						
Nitrogenous .. .. .	180,518	389,896	373,440	278,921	244,078	247,995
Ammonium phosphate	3,222	10,451	30,118	5,174	7,286	7,403
Potassium nitrate ..	4,004	3,965	<i>n.a.</i>	<i>n.a.</i>	9,763	9,919
Anhydrous and liquid ammonia ..	66,166	155,045	272,678	363,505	<i>n.a.</i>	<i>n.a.</i>
Malta—						
Ammonium sulphate ..	561	1,087	1,754	1,717	2,131	2,165
Gambia—						
Ammonium sulphate ..	—	16	—	—	—	—
Ghana—						
Ammonium sulphate ..	5,018	105	1,057	3,790	2,084	2,117
Other nitrogen fertilizers	—	41	58	854	610	620
Kenya—						
Ammonium sulphate ..	8,531	8,659	6,258	8,882	11,312	11,494
Other nitrogen fertilizers	21,668	20,145	31,059	20,692	36,624	37,212
Malawi—						
Ammonium sulphate ..	14,071	17,777	12,957	12,991	21,716	22,065
Ammonium nitrate ..	48	6	13	50	523	531
Mauritius—						
Nitrogen fertilizers ..	14,415	18,668	15,638	18,571	17,453	17,733
Nigeria—						
Nitrogen fertilizers ..	10,948	28,914	12,718	4,184	7,119	7,233
Sierra Leone—						
Ammonium sulphate ..	388	260	119	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania—						
Ammonium sulphate ..	7,976	6,820	7,354	10,297	10,908	11,083
Other nitrogen fertilizers	5,941	4,247	5,929	6,224	7,586	7,708
Uganda—						
Ammonium sulphate ..	5,356	4,761	3,357	610	473	481
Other nitrogen fertilizers	447	2,920	2,754	2,381	3,110	3,160
Zambia—						
Ammonium sulphate ..	1,134	12,101	2,361	4,369	<i>n.a.</i>	<i>n.a.</i>
Ammonium nitrate ..	3,987	7,108	8,306	15,501	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Potassium nitrate ..	1,443	1,517	2,384	3,425	2,638	2,680
Sodium nitrate ..	22,997	18,610	12,916	8,242	10,550	10,719
Ammonium sulphate ..	15,278	20,952	16,476	26,178	36,336	36,919
Other nitrogen fertilizers	16,273	12,471	23,319	14,315	5,299	5,384
Antigua—						
Nitrogen fertilizers ..	1	85	16	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Barbados—						
Nitrogen fertilizers ..	10,225	9,540	6,984	4,426	1,581	1,606
Grenada—						
Ammonium sulphate ..	283	285	251	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other nitrogen fertilizers	77	420	699	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Jamaica—						
Ammonium sulphate	14,364	26,323	25,282	17,943	<i>n.a.</i>	<i>n.a.</i>
Other nitrogen fertilizers ..	6,529	7,043	3,405	4,484	<i>n.a.</i>	<i>n.a.</i>
St. Kitts—						
Nitrogen fertilizers ..	2,370	99	840	1,611	<i>n.a.</i>	<i>n.a.</i>
St. Lucia—						
Nitrogen fertilizers ..	311	1,387	230	346	280	284
St. Vincent—						
Ammonium sulphate ..	799	2,985	716	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Guyana—						
Ammonium sulphate ..	23,617	28,052	25,017	23,101	23,006	23,375



## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Ceylon—</b>						
Natural sodium nitrate ..	12	—	—	546	n.a.	n.a.
Ammonium sulphate ..	175,528	129,640	161,449	n.a.	n.a.	n.a.
Ammonium nitrate ..	7,899	5,349	295	n.a.	n.a.	n.a.
Cyanamide ..	—	—	50	n.a.	n.a.	n.a.
<b>Cyprus—</b>						
Ammonium sulphate ..	28,528	17,950	29,108	24,611	21,157	21,496
Other nitrogen fertilizers	15,082	8,701	16,555	15,481	21,019	21,356
<b>Hong Kong—</b>						
Potassium nitrate ..	341	634	742	609	595	605
Sodium nitrate ..	947	675	916	694	856	870
Ammonium sulphate ..	727	1,015	720	593	1,601	1,627
Synthetic nitrates ..	608	494	903	543	652	663
Ammonium chloride ..	1,044	1,360	1,264	1,498	1,351	1,373
<b>India (a)—</b>						
Potassium nitrate ..	5	—	—	—	—	—
Sodium nitrate ..	14,718	2,652	6,991	9,086	6,856	6,966
Ammonium sulphate ..	983,123	865,755	1,280,100	553,560	156,966	159,485
Ammonium nitrate ..	33,201	129,748	78,133	57,511	236,403	240,197
Ammonium phosphate	128,902	459,136	353,524	126,906	43,930	44,635
Ammonium chloride ..	6,957	46,298	46,835	—	—	—
Other nitrogen fertilizers	65,301	174,320	78,136	51,303	125,273	127,283
<b>Malaysia (West)—</b>						
Nitrogen fertilizers ..	152,759	120,642	56,855	43,824	38,849	39,473
Anhydrous ammonia ..	6,588	6,271	2,095	8,114	12,728	12,932
<b>Sabah—</b>						
Nitrogen fertilizers ..	1,236	2,339	325	1,661	2,191	2,226
<b>Sarawak—</b>						
Ammonium sulphate ..	5,731	5,717	4,246	n.a.	n.a.	n.a.
Other nitrogen fertilizers						
<b>Australia (b)—</b>						
Potassium nitrate ..	422	1,602	603	368	5,187	5,270
Sodium nitrate ..	6,506	4,938	9,041	5,845	5,013	5,094
Sodium and potassium nitrate ..	1,120	95	213	192	186	189
Ammonium chloride ..	1,475	1,723	1,684	4,038	4,094	4,160
Ammonium sulphate ..	52,558	75,013	113,231	69,650	11,932	12,124
Ammonium nitrate ..						
Cal. ammonium nitrate	13,003	13,817	15,286	19,473	3,554	3,611
Other nitrogen fertilizers	1,055	2,444	1,393	681	620	630
<b>Fiji—</b>						
Nitrogen fertilizers ..	18,105	19,728	26,391	22,497	n.a.	n.a.
<b>New Zealand (b)—</b>						
Potassium nitrate ..	185	517	230	192	n.a.	n.a.
Sodium nitrate ..	3,923	2,600	735	1,060	450	457
Calcium nitrate ..	1,393	1,853	877	1,325	n.a.	n.a.
Ammonium sulphate ..	12,557	12,834	10,487	18,763	24,027	24,413
Ammonium nitrate ..	1,886	996	1,572	1,286	n.a.	n.a.
Other nitrogen fertilizers	4,641	7,279	5,449	4,216	n.a.	n.a.
Anhydrous ammonia ..	127	128	223	599	n.a.	n.a.
Cyanamide ..	5	5	4	5	n.a.	n.a.
<b>Irish Republic—</b>						
Sodium nitrate ..	917	736	724	630	—	—
Ammonium sulphate ..	13,589	23,005	13,378	138	5,839	5,933
Anhydrous ammonia ..	3,843	15,054	31,205	38,364	39,530	40,164
Ammonium nitrate ..	8,363	10,785	30,879	10,681	9,117	9,263
Other nitrogen fertilizers	3,164	939	542	623	562	571

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Calcium nitrate ..	440	383	487	304	279	284
Potassium nitrate ..	547	487	499	640	840	854
Cyanamide ..	1,629	1,677	2,497	3,864	5,945	6,040
Anhydrous ammonia ..	4,979	9,383	4,344	7,889	3,089	3,139
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Potassium nitrate ..	2,519	2,614	2,433	1,873	1,970	2,002
Sodium nitrate ..	29,152	17,913	22,739	23,110	12,378	12,577
Calcium nitrate ..	(a) 1,090	(a) 2,156	(a) 2,453	(a) 3,059	(a) 2,143	(a) 2,177
Cyanamide ..	(a) 992	(a) 95	(a) 163	(a) 162	(a) 124	(a) 126
Ammonium sulphate ..	(a) 6,569	(a) 6,260	(a) 5,484	(a) 4,170	(a) 3,585	(a) 3,643
Ammonium chloride ..	3,131	2,720	3,000	3,340	3,518	3,575
Ammonium nitrate ..	(a) 10,097	(a) 2,993	(a) 6,771	(a) 13,960	(a) 7,921	(a) 8,048
Anhydrous ammonia ..	13,892	52,882	203,234	273,043	438,850	445,892
<b>Bulgaria—</b>						
Nitrogen fertilizers ..	62,694	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Czechoslovakia—</b>						
Nitrogen fertilizers (a)	40,000	52,000	84,000	84,000	95,000	97,000
<b>Denmark—</b>						
Potassium nitrate ..	1,314	1,477	1,410	1,399	1,390	1,412
Sodium nitrate ..	18,258	13,940	7,699	22,412	14,637	14,872
Calcium nitrate ..	424,969	292,569	258,974	193,524	183,712	186,660
Ammonium sulphate ..	6,212	4,631	4,366	5,387	6,126	6,224
Ammonium chloride ..	1,453	1,262	1,461	1,453	1,477	1,501
Ammonium nitrates ..	11,988	20,821	26,757	9,125	11,002	11,179
Cyanamide ..	59	54	136	120	131	133
<b>Finland—</b>						
Potassium nitrate ..	461	278	926	551	932	947
Sodium nitrate ..	643	476	531	615	825	838
Calcium nitrate ..	52,117	43,514	42,914	40,102	25,241	25,646
Ammonium nitrate ..	5,035	4,446	4,082	4,499	4,135	4,201
Ammonium sulphate ..	62,431	27,800	20,541	12,597	1,052	1,069
Ammonium chloride ..	1,055	1,318	602	584	738	750
Anhydrous ammonia ..	13,197	19,949	52,958	68,925	135,472	137,646
<b>France—</b>						
Sodium nitrate ..	30,920	24,088	26,894	30,012	31,280	31,782
Calcium nitrate ..	594	1,374	3,942	6,983	358	364
Ammonium sulphate ..	50,306	34,118	40,192	45,621	74,292	75,484
Ammonium nitrate ..	4,226	8,450	3,424	8,878	2,241	2,277
Ammonium chloride ..	1,835	1,826	1,891	1,888	1,855	1,885
Anhydrous ammonia ..	51,642	60,586	147,851	170,903	125,881	127,901
Cyanamide ..	6,448	8,694	10,278	11,659	19,697	20,013
<b>Germany (Federal)—</b>						
Potassium nitrate ..	4,577	4,235	4,387	3,860	3,508	3,564
Sodium nitrate ..	897	34	64	25	66	67
Ammonium nitrates ..	196,745	373,177	238,707	281,811	339,019	344,459
Ammonium chloride ..	n.a.	n.a.	1,067	1,412	1,974	2,006
Other nitrogen fertilizers	35,865	8,918	4,975	5,903	3,824	3,885
<b>Greece—</b>						
Potassium nitrate ..	79	91	124	101	540	549
Sodium nitrate ..	13,913	5,846	199	265	1,094	1,112
Ammonium nitrate ..	11,367	60,251	91,996	78,762	64,557	65,593
Ammonium sulphate ..	104,788	26,499	15,446	16,573	n.a.	n.a.
Ammonium chloride ..	212	247	271	356	246	250
Other nitrogen fertilizers	28,186	19,557	21,693	18,083	8,557	8,694
Anhydrous ammonia ..	5,856	14,871	10,455	8,055	12,631	12,834
<b>Hungary—</b>						
Nitrogen fertilizers ..	265,000	209,636	495,056	504,094	397,879	404,264
<b>Iceland—</b>						
Lime ammonium nitrate	6,842	1,777	3,598	3,706	2,954	3,001

(a) N content.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Italy—						
Potassium nitrate ..	1,523	1,744	1,846	2,322	4,781	4,858
Sodium nitrate ..	1,365	23,576	234	104	79	80
Ammonium chloride ..	1,005	1,567	1,610	1,969	1,642	1,668
Ammonium nitrate ..	2,535	3,201	5,134	12,685	30,203	30,688
Ammonium sulphate ..	219	1,423	1,033	861	33,609	34,149
Cyanamide ..	—	674	3,898	4,144	5,537	5,626
Netherlands—						
Potassium nitrate ..	3,282	3,680	3,339	4,415	4,867	4,945
Sodium nitrate ..	30,753	54,859	7,704	32,860	28,311	28,765
Calcium nitrate (a) ..	—	—	37	13	18	18
Ammonium sulphate (a) ..	230	136	121	302	398	404
Ammonium chloride ..	1,797	2,143	2,418	2,645	2,274	2,311
Ammonium nitrate (a) ..	} r 228	897	998	2,365	10,947	11,123
Lime ammonium nitrate (a) ..						
Cyanamide (a) ..	636	563	423	362	410	417
Anhydrous ammonia ..	3,436	1,794	48,990	200,210	31,076	31,575
Other nitrogen fertilizers (a) ..	1,835	309	140	181	116	118
Norway—						
Potassium nitrate ..	234	663	136	213	205	208
Ammonium chloride ..	554	448	495	581	578	587
Ammonium sulphate ..	466	260	571	449	397	403
Anhydrous ammonia ..	24,098	5,413	66,784	65,022	40,203	40,848
Poland—						
Nitrogen fertilizers ..	86,000	67,000	51,000	n.a.	n.a.	n.a.
Portugal—						
Potassium nitrate ..	459	394	427	436	594	604
Sodium nitrate ..	524	3,967	3,583	4,043	4,556	4,629
Calcium nitrate ..	—	475	260	169	50	51
Ammonium sulphate ..	50	68	83	117	73	74
Ammonium chloride ..	173	176	298	326	270	274
Ammonium nitrate ..	49	39	252	668	1,750	1,778
Nitrophoska ..	n.a.	n.a.	n.a.	1,609	2,005	2,037
Anhydrous ammonia ..	—	6	8,403	3,947	2	2
Roumania—						
Nitrogen fertilizers (a) ..	100	295	1,772	n.a.	n.a.	n.a.
Spain—						
Sodium nitrate ..	118,715	70,677	60,098	74,668	74,551	75,747
Ammonium sulphate ..	193,778	100,402	106,439	27,626	7,978	8,106
Calcium nitrate ..	149,497	55,891	101,987	81,383	78,883	80,149
Other nitrogen fertilizers ..	33,876	7,595	41,987	112,910	162,226	164,829
Anhydrous ammonia ..	14,892	3,739	1,993	36,352	115,461	117,314
Sweden—						
Potassium nitrate ..	1,636	1,213	1,441	1,580	1,689	1,716
Sodium nitrate ..	27,361	23,054	27,343	28,181	29,777	30,255
Calcium nitrate ..	457,808	384,212	480,933	491,966	432,630	439,573
Ammonium nitrate ..	22	—	1,247	1,918	4,582	4,656
Ammonium sulphate ..	4,224	487	656	508	494	502
Ammonium chloride ..	1,191	1,491	1,391	1,390	1,698	1,725
Switzerland—						
Potassium and sodium nitrates ..	1,093	1,122	2,771	1,235	1,455	1,478
Ammonium sulphate, etc. ..	827	903	1,237	887	4,272	4,341
Ammonium chloride ..	832	970	1,140	1,193	1,488	1,512
Ammonium and calcium nitrates ..	446	3,022	1,200	1,774	2,098	2,132

(a) N content.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Yugoslavia—						
Sodium nitrate ..	1,350	725	1,160	1,603	2,078	2,111
Ammonium sulphate ..	134,346	110,590	150,214	118,805	67,946	69,036
Ammonium nitrate ..	497	3,465	922	11,315	1,508	1,532
Lime ammonium nitrate	251,618	271,365	185,256	157,676	—	—
Anhydrous ammonia ..	220	295	4,021	45,504	67,274	68,354
Other nitrogen fertilizers	n.a.	3,789	9,412	315	—	—
Angola—						
Sodium nitrate ..	190	375	30	48	1,450	1,474
Ammonium nitrate ..	1,257	929	482	302	718	730
Ammonium sulphate ..	9,888	9,514	8,516	12,909	11,195	11,375
Canary Islands—						
Ammonium sulphate ..	43,432	45,579	66,362	52,782	66,233	67,296
Calcium nitrate ..	936	767	1,140	264	567	577
Other nitrogen fertilizers	6,784	4,852	5,954	7,189	15,617	15,868
Central African Republic	436	2,122	1,049	944	n.a.	n.a.
Congo (Brazza) ..	1,265	46	1,594	4,073	n.a.	n.a.
Egypt—						
Ammonium sulphate ..	416,170	106,135	n.a.	n.a.	n.a.	n.a.
Ammonium nitrate ..	9,844	27,050	n.a.	n.a.	n.a.	n.a.
Other nitrogen fertilizers	82,773	28,785	n.a.	n.a.	n.a.	n.a.
Malagasy Republic—						
Nitrogen fertilizers ..	2,862	3,675	4,859	5,815	4,809	4,887
Morocco—						
Potassium nitrate ..	172	328	506	445	386	393
Sodium nitrate ..	222	215	265	328	491	499
Calcium nitrate ..	253	49	146	147	113	115
Ammonium nitrate ..	18,649	13,581	23,741	23,574	13,596	13,815
Ammonium sulphate ..	42,522	50,088	76,704	57,271	38,844	39,468
Other nitrogen fertilizers	1,983	11,364	8,712	13,478	13,861	14,084
Reunion—						
Nitrogen fertilizers ..	4,912	5,702	5,293	4,299	n.a.	n.a.
South Africa—						
Sodium nitrate ..	1,043	945	1,430	1,559	670	681
Ammonium sulphate ..	24,326	10,339	5,480	3,159	1,193	1,212
Ammonium chloride ..	1,783	2,829	2,356	3,832	6,927	7,038
Ammonium nitrate ..	993	17,140	n.a.	n.a.	281	286
Sudan—						
Sodium, calcium and ammonium nitrates (synthetic) ..	30,573	12,167	7,301	551	5,501	5,590
Other nitrogen fertilizers						
Tunisia—						
Nitrogen fertilizers ..	19,814	21,165	27,905	41,873	11,446	11,630
Costa Rica—						
Nitrogen fertilizers ..	29,245	28,059	55,556	66,787	52,148	52,985
French West Indies—						
Guadeloupe—						
Nitrogen fertilizers ..	2,059	1,484	2,425	1,564	n.a.	n.a.
Martinique—						
Nitrogen fertilizers ..	7,157	6,736	5,876	4,461	n.a.	n.a.
Guatemala—						
Sodium nitrate ..	1	148	181	100	100	102
Other nitrogen fertilizers	31,191	24,469	29,298	33,642	51,520	52,347
Honduras—						
Nitrogen fertilizers ..	15,647	19,326	25,028	24,496	24,414	24,806
Mexico—						
Sodium nitrate ..	14,415	15,004	17,283	17,031	15,553	15,803
Ammonium chloride ..	45	249	1	—	69	70
Ammonium sulphate ..	55,637	69,386	84,693	38,920	n.a.	n.a.
Ammonium nitrate ..	24,387	4,194	15,204	13,256	8,373	8,507
Anhydrous ammonia ..	126,228	189,718	173,484	82,067	57,313	58,233

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Nicaragua—						
Nitrogen fertilizers ..	18,562	25,681	44,116	12,002	40,482	41,132
Panama Republic—						
Nitrogen fertilizers ..	12,395	15,606	17,784	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Sodium nitrate ..	248	—	198	—	—	—
Other nitrogen fertilizers	56,936	69,731	92,278	98,660	161,291	163,880
United States—						
Potassium and sodium						
nitrates, crude.. ..	35,803	40,022	25,403	32,665	50,142	50,947
Potassium nitrate ..	24,617	13,799	14,287	10,102	12,974	13,182
Sodium nitrate ..	286,841	194,693	183,285	164,729	115,587	117,442
Calcium nitrate ..	34,131	28,795	37,360	44,378	46,803	47,555
Ammonium sulphate ..	142,735	149,963	116,800	124,600	194,374	197,493
Ammonium chloride ..	4,096	3,833	3,973	3,406	3,514	3,570
Ammonium nitrate ..	138,377	158,266	202,600	208,464	291,175	295,848
Ammonium phosphates	159,704	189,081	220,554	244,078	407,758	414,301
Cyanamide ..	16,904	15,874	15,444	12,889	6,920	7,031
Argentina—						
Potassium nitrate ..	97	57	6	10	139	142
Sodium nitrate ..	8,935	10,118	8,891	10,472	13,257	13,470
Ammonium sulphate ..	2,172	29,988	12,646	19,887	<i>n.a.</i>	<i>n.a.</i>
Ammonium chloride ..	1,516	1,954	2,567	2,453	3,016	3,065
Brazil—						
Potassium nitrate ..	739	442	353	<i>n.a.</i>	197	200
Sodium nitrate ..	27,649	26,737	24,965	34,299	23,375	23,751
Potassium and sodium						
nitrates .. ..	18,411	9,562	6,240	16,895	7,541	7,662
Ammonium chloride ..	2,540	2,586	3,315	3,271	4,505	4,577
Ammonium nitrate ..	—	148	—	986	—	—
Ammonium sulphate ..	234,346	298,590	412,243	443,918	686,212	697,224
Cyanamide .. ..	104	59	197	1,671	93	95
Other nitrogen fertilizers	9,999	10,870	13,519	10,141	10,703	10,875
Chile—						
Ammonium chloride ..	19,000	636	357	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..		408	1,377	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium nitrate ..		15,176	30,851	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Anhydrous ammonia ..		116	70	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Potassium nitrate ..	498	208	192	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sodium nitrate ..	10	133	172	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium chloride ..	375	37	312	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	4,020	1,865	4,824	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other nitrogen fertilizers	2,076	711	2,172	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Anhydrous ammonia ..	5	16	7	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador—						
Nitrogen fertilizers ..	9,062	5,353	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Potassium nitrate ..	141	200	163	110	<i>n.a.</i>	<i>n.a.</i>
Sodium nitrate ..	2,416	2,544	1,765	551	<i>n.a.</i>	<i>n.a.</i>
Anhydrous ammonia ..	28	4	93	34	<i>n.a.</i>	<i>n.a.</i>
Other nitrogen fertilizers	34,830	92,069	24,095	26,607	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Potassium nitrate ..	11	31	15	5	19	19
Sodium nitrate ..	510	216	98	260	410	417
Ammonium sulphate ..	8,351	1,563	3,887	1,397	3,117	3,167
Venezuela—						
Potassium nitrate ..	414	3,562	1,961	1,800	<i>n.a.</i>	<i>n.a.</i>
Sodium nitrate ..	182	327	167	312	<i>n.a.</i>	<i>n.a.</i>
Calcium nitrate ..	—	—	—	2,070	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	10,000	27,512	11,953	15,439	<i>n.a.</i>	<i>n.a.</i>
Anhydrous ammonia ..	—	2	6,866	12,600	<i>n.a.</i>	<i>n.a.</i>

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Burma—						
Nitrogen fertilizers ..	14,517	15,943	61,734	n.a.	n.a.	n.a.
Formosa—						
Sodium nitrate ..	1,241	1,231	1,516	1,813	2,485	2,525
Ammonium chloride ..	741	853	1,312	1,151	1,291	1,312
Ammonium sulphate ..	22,981	169,219	62,990	195,976	12,080	12,274
Other nitrogen fertilizers	45,668	n.a.	n.a.	n.a.	8	8
Iran (a)—						
Ammonium chloride ..	286	293	490	370	509	518
Nitrogen fertilizers ..	7,173	6,870	20,157	15,100	17,386	17,666
Iraq—						
Nitrogen fertilizers ..	11,644	25,074	40,000	50,146	44,785	45,504
Israel—						
Nitrogen fertilizers ..	1,932	1,749	n.a.	3,847	11,286	11,468
Japan—						
Sodium nitrate ..	21,659	26,896	24,283	25,379	22,776	23,142
Jordan—						
Nitrogen fertilizers ..	6,840	8,965	4,162	3,813	1,858	1,888
Korea (South)—						
Ammonium sulphate ..	79,732	100,593	263,927	78,480	n.a.	n.a.
Ammonium nitrate ..	4,114	6,163	n.a.	n.a.	n.a.	n.a.
Other nitrogen fertilizers	112,521	35,695	17,705	23,499	n.a.	n.a.
Lebanon—						
Nitrogen fertilizers ..	59,334	21,312	33,840	23,095	30,611	31,103
Philippine Republic—						
Ammonium phosphate	n.a.	4,432	10,288	n.a.	n.a.	n.a.
Ammonium sulphate ..	n.a.	94,570	57,330	n.a.	n.a.	n.a.
Other nitrogen fertilizers	n.a.	66,517	51,286	n.a.	n.a.	n.a.
Syria—						
Nitrogen fertilizers ..	59,066	34,009	83,362	61,355	93,954	95,462
Thailand—						
Potassium nitrate ..	1,198	976	1,334	1,315	n.a.	n.a.
Ammonium chloride ..	1,991	2,319	2,153	2,365	2,972	3,020
Ammonium sulphate ..	39,181	40,923	26,749	2,767	1,000	1,016
Other nitrogen fertilizers	r 8,650	r 11,206	r 16,275	21,027	10,625	10,796
Turkey—						
Potassium nitrate ..	587	322	316	167	n.a.	n.a.
Sodium nitrate ..	1,868	7,503	12,697	2,226	n.a.	n.a.
Ammonium chloride ..	646	844	776	1,096	n.a.	n.a.
Ammonium sulphate ..	259,482	294,335	296,133	372,145	n.a.	n.a.
Ammonium nitrate ..	48,026	32,018	130,934	146,661	n.a.	n.a.
Calcium nitrate ..	—	11,744	42,449	11,600	n.a.	n.a.

(a) Year ended March 20 of year following that stated.

**PETROLEUM AND ALLIED PRODUCTS**  
**PRODUCTION OF CRUDE PETROLEUM\***

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Crude petroleum .. .. .	76,800	87,400	79,900	76,000	82,000	83,000
Nigeria (b) .. .. .	20,881,000	15,962,000	6,900,000	25,600,000	51,970,000	52,800,000
Canada (b) .. .. .	42,856,000	46,838,978	50,586,170	54,333,157	61,494,274	62,481,257
Trinidad (b) .. .. .	7,943,355	9,284,320	8,557,000	8,204,000	7,292,000	7,409,000
Abu Dhabi .. .. .	12,053,582	12,165,510	14,917,600	16,814,871	20,079,903	20,402,185
Bahrain Islands .. .. .	3,021,000	3,396,000	3,696,000	3,719,000	3,779,000	3,840,000
Brunei .. .. .	4,619,000	5,095,000	5,884,000	6,005,000	6,700,000	6,807,000
India .. .. .	4,570,000	5,577,000	5,761,000	6,616,000	6,701,000	6,808,000
Pakistan (b) .. .. .	500,000	425,000	480,000	470,000	475,000	482,000
Qatar .. .. .	8,915,387	9,069,839	9,018,000	9,366,184	8,881,948	9,024,503
Sarawak .. .. .	47,336	45,104	200,187	439,888	845,420	858,986
Australia .. .. .	425,437	978,077	1,790,500	2,034,112	8,406,323	8,541,244
New Zealand .. .. .	521	360	322	430	<i>n.a.</i>	<i>n.a.</i>
<b>TOTAL .. .. .</b>	<b>105,909,000</b>	<b>109,422,000</b>	<b>109,396,000</b>	<b>134,036,000</b>	<b>176,702,000</b>	<b>179,538,000</b>
<b>OTHER COUNTRIES</b>						
Albania .. .. .	861,000	1,070,000	1,134,900	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Austria .. .. .	2,713,568	2,642,506	2,770,000	2,714,700	2,754,043	2,798,237
Bulgaria .. .. .	398,000	491,000	467,000	320,000	328,000	334,000
Czechoslovakia .. .. .	187,000	200,000	r 206,000	207,000	200,000	203,000
France .. .. .	2,879,131	2,781,172	2,645,220	2,456,579	2,273,000	2,309,000
Germany (Federal)— Crude petroleum .. .. .	7,743,949	7,801,994	7,856,069	7,751,341	7,416,213	7,535,221
Hungary .. .. .	1,679,000	1,659,000	1,778,000	1,726,000	1,906,000	1,937,000
Italy .. .. .	r 1,730,143	1,663,523	1,520,000	1,495,908	1,385,820	1,408,058
Netherlands .. .. .	2,331,000	2,229,227	2,100,000	2,000,000	1,969,000	1,991,000
Poland .. .. .	394,100	443,000	467,300	431,000	417,000	424,000
Roumania .. .. .	12,622,000	12,997,000	13,075,000	13,037,000	13,166,000	13,377,000
Sweden— Shale oil .. .. .	26,574	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
U.S.S.R. .. .. .	260,938,000	283,451,000	305,000,000	350,000,000	349,000,000	355,000,000
Yugoslavia .. .. .	2,187,075	2,336,506	2,455,000	2,656,000	2,809,000	2,854,000
Algeria .. .. .	32,736,000	37,770,000	41,479,000	43,149,000	46,119,900	46,860,000
Angola .. .. .	621,348	528,668	737,676	2,418,700	4,985,109	5,065,105
Congo (Brazza) .. .. .	61,013	49,210	41,947	23,833	18,644	18,943
Egypt .. .. .	6,165,000	5,626,000	7,900,000	12,150,000	16,141,000	16,400,000
Gabon .. .. .	1,424,000	3,424,054	4,569,000	4,948,039	5,253,403	5,337,705
Libya .. .. .	71,100,000	82,100,000	123,000,000	148,000,000	158,000,000	160,000,000
Morocco .. .. .	101,344	95,626	87,238	57,635	43,359	44,055
Tunisia .. .. .	587,000	2,191,000	3,136,000	3,568,000	4,379,000	4,449,000
Cuba (a) (b) .. .. .	61,000	101,000	60,000	60,000	<i>n.a.</i>	<i>n.a.</i>
Mexico (b) .. .. .	17,700,000	18,721,000	20,019,000	21,080,000	21,531,000	21,877,000
United States (b) .. .. .	403,701,700	428,860,000	443,872,000	447,404,000	468,757,000	476,276,000
Argentina (b) .. .. .	14,728,400	16,138,800	17,661,000	18,312,000	20,470,000	20,800,000
Bolivia (b) .. .. .	738,453	1,780,000	1,864,000	1,805,000	1,110,000	1,128,000
Brazil (b) .. .. .	5,438,000	6,856,000	7,700,000	9,131,000	8,696,000	8,835,000
Chile .. .. .	1,594,000	1,583,000	1,760,000	1,907,000	1,774,513	1,802,989
Colombia (b) .. .. .	10,129,089	9,941,128	8,934,444	10,845,070	11,275,000	11,456,000
Ecuador (b) .. .. .	345,100	293,108	229,000	214,349	198,000	201,177
Peru .. .. .	3,026,000	3,094,000	3,555,000	3,272,000	3,035,000	3,084,000
Venezuela .. .. .	173,631,463	182,559,869	186,242,006	187,283,000	191,236,000	194,305,000
Burma .. .. .	474,000	608,000	779,000	800,000	805,000	818,000

\*Excluding Natural Gasoline. See page 239.

(a) Estimated.

(b) The following conversion rates have been used: 35 gallons=1 barrel, and the undermentioned barrels=1 ton (barrels per tonne in brackets)—Nigeria 7.3 (7.2), Canada 7.5 (7.4), Trinidad 7.0 (6.9), Burma 7.4 (7.3), Pakistan 7.4 (7.3), Cuba 6.8 (6.7), Mexico 7.1 (7.0), United States 7.5 (7.4), Argentina 7.1 (7.0), Bolivia 8.2 (8.1), Brazil 7.8 (7.7), Colombia 7.1 (7.0), Ecuador 7.5 (7.4), Venezuela 7.1 (7.0), Indonesia 7.5 (7.4).

PRODUCTION OF CRUDE PETROLEUM (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
China (a) .. ..	(d)8,500,000	(d)7,500,000	(d)8,500,000	(d)9,000,000	d13,000,000	d13,000,000
Formosa .. ..	29,805	32,357	55,580	76,700	84,200	85,500
Indonesia .. ..	23,359,000	25,498,000	30,118,000	37,000,000	41,430,000	42,100,000
Iran (b) .. ..	98,829,000	120,919,000	132,901,000	152,200,000	172,400,000	175,160,000
Iraq .. ..	66,679,542	58,938,981	72,620,000	73,309,000	75,241,100	76,448,700
Israel .. ..	184,000	138,000	117,000	102,000	79,000	80,000
Japan .. ..	765,000	771,000	780,364	785,400	738,000	750,000
Kuwait .. ..	112,500,000	113,355,644	120,162,473	127,502,203	135,227,000	137,397,000
Mongolia .. ..	12,000	10,000	8,000	4,000	<i>n.a.</i>	<i>n.a.</i>
Saudi Arabia .. ..	117,568,598	127,262,215	138,776,535	146,494,684	174,056,992	176,848,866
Turkey .. ..	2,008,884	2,685,033	3,055,400	3,568,813	3,401,000	3,456,000
Neutral Zone (c) ..	22,087,000	22,263,000	22,546,000	23,751,000	26,500,000	26,900,000
<b>TOTAL .. ..</b>	<b>1,492,000,000</b>	<b>1,508,000,000</b>	<b>1,742,000,000</b>	<b>1,871,000,000</b>	<b>1,990,000,000</b>	<b>2,022,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>1,600,000,000</b>	<b>1,617,000,000</b>	<b>1,851,000,000</b>	<b>2,005,000,000</b>	<b>2,167,000,000</b>	<b>2,202,000,000</b>

(a) Including oil from shale and coal.

(b) 1954 Oil Agreement Area only.

(c) Neutral Zone of Kuwait and Saudi Arabia.

(d) Estimated.



PRODUCTION OF NATURAL GASOLINE

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Trinidad (a) .. ..	21,359	21,818	19,000	16,700	<i>n.a.</i>	<i>n.a.</i>
Brunei .. ..	55,000	57,000	55,000	50,500	49,000	50,000
<b>OTHER COUNTRIES</b>						
Austria .. ..	2,000	1,000	2,000	2,000	<i>n.a.</i>	<i>n.a.</i>
France .. ..	285,899	308,843	313,292	392,609	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) ..	8,000	8,000	8,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Italy .. ..	90,745	105,115	118,000	110,000	<i>n.a.</i>	<i>n.a.</i>
Poland .. ..	26,100	24,000	24,000	25,000	26,200	26,600
Roumania .. ..	391,000	404,000	389,000	384,000	<i>n.a.</i>	<i>n.a.</i>
Yugoslavia .. ..	17,000	18,000	22,200	22,500	24,200	24,600
Algeria .. ..	600,000	676,000	732,000	915,000	900,000	914,000
Egypt .. ..	5,000	4,000	5,000	2,000	<i>n.a.</i>	<i>n.a.</i>
Mexico .. ..	1,605,000	1,955,000	2,088,000	2,173,000	<i>n.a.</i>	<i>n.a.</i>
United States .. ..	14,911,880	15,638,000	16,664,000	17,726,000	18,507,000	18,804,000
Argentina .. ..	133,000	113,000	69,000	71,000	<i>n.a.</i>	<i>n.a.</i>
Chile .. ..	58,000	56,000	58,000	51,000	<i>n.a.</i>	<i>n.a.</i>
Colombia .. ..	55,000	60,000	57,000	61,000	<i>n.a.</i>	<i>n.a.</i>
Ecuador .. ..	13,667	14,311	13,000	15,662	<i>n.a.</i>	<i>n.a.</i>
Peru .. ..	90,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. ..	408,000	423,000	400,000	429,000	<i>n.a.</i>	<i>n.a.</i>
Japan .. ..	3,000	3,000	4,000	4,000	<i>n.a.</i>	<i>n.a.</i>
<b>WORLD'S TOTAL (b)</b>	<b>19,000,000</b>	<b>20,000,000</b>	<b>21,000,000</b>	<b>22,000,000</b>	<b>23,000,000</b>	<b>24,000,000</b>

(a) Incomplete, as about half the production is blended with crude petroleum at field storage.

(b) Totals refer only to those countries reported above.

PRODUCTION OF NATURAL GAS\*

Producing Country	Million cubic ft					Million m <sup>3</sup>
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	123	16,664	71,351	178,673	391,958	11,099
Nigeria .. .. .	6,357	5,424	5,190	2,260	2,839	80
Canada .. .. .	1,341,833	1,471,598	1,692,301	1,979,309	2,276,579	64,466
Barbados .. .. .	96	108	97	108	117	3
Trinidad .. .. .	48,691	53,747	56,402	56,686	56,489	1,600
Brunei .. .. .	7,100	8,899	8,474	123,267	135,927	3,849
India .. .. .	13,172	16,457	21,330	25,744	23,873	676
Pakistan .. .. .	76,000	83,288	91,525	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Australia .. .. .	143	152	216	9,375	53,061	1,502
New Zealand .. .. .	4	4	3	2	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	66,163	63,469	57,600	52,379	67,006	1,897
Bulgaria .. .. .	3,846	11,605	17,876	18,540	<i>n.a.</i>	<i>n.a.</i>
Czechoslovakia .. .. .	33,300	31,900	39,100	41,672	<i>n.a.</i>	<i>n.a.</i>
France .. .. .	285,899	302,011	307,238	345,377	361,975	10,250
Germany (Federal) .. .. .	114,183	148,476	223,841	310,531	440,463	12,463
Hungary .. .. .	54,810	72,219	95,032	114,243	122,506	3,469
Italy .. .. .	r 310,588	330,330	367,590	422,828	465,129	13,171
Netherlands .. .. .	123,400	246,900	496,400	771,700	1,118,350	31,668
Poland .. .. .	48,590	55,440	90,300	138,575	183,000	5,182
Roumania .. .. .	657,400	731,000	774,600	842,900	875,500	24,800
U.S.S.R. .. .. .	5,048,700	5,593,800	6,000,000	(a)6,000,000	(a)7,000,000	(a) 200,000
Yugoslavia .. .. .	14,208	16,280	20,624	25,784	34,500	977
Algeria (Sahara) .. .. .	r 64,944	r 76,209	r 87,510	105,414	105,873	2,998
Gabon .. .. .	406	611	883	742	1,123	32
Morocco .. .. .	460	379	382	1,484	1,539	44
Tunisia .. .. .	296	326	334	328	316	9
Mexico .. .. .	529,300	571,674	576,759	608,119	665,327	18,840
United States .. .. .	17,206,628	18,171,000	19,322,400	20,698,000	21,906,900	620,334
Argentina .. .. .	161,459	169,087	188,580	188,157	212,311	6,012
Brazil .. .. .	27,848	30,888	34,700	44,069	44,623	1,264
Chile .. .. .	55,940	60,000	68,000	80,000	94,000	2,700
Colombia .. .. .	35,990	40,640	41,500	47,250	51,997	1,472
Peru .. .. .	<i>n.a.</i>	56,904	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	237,868	265,233	272,800	281,810	317,407	8,988
Formosa .. .. .	15,509	18,616	24,878	31,554	32,400	917
Indonesia .. .. .	56,540	98,000	115,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran .. .. .	51,000	51,000	54,600	98,300	194,200	5,500
Israel .. .. .	3,371	3,860	5,001	4,980	4,732	134
Japan .. .. .	64,510	66,735	72,620	77,880	83,299	2,359
Kuwait .. .. .	66,110	69,920	(a) 87,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

\*So far as possible the figures represent only that part of the gas produced which is actually utilized.

NOTE.—Production and shipments of helium in the United States were as follows (million cubic feet)

Production: 1966—4,606; 1967—4,712; 1968—4,855; 1969—4,752; 1970—4,677 (132 million m<sup>3</sup>).

Shipments from Bureau of Mines plants: 1966—809; 1967—607; 1968—478; ;1969—360; 1970—230 (7 million m<sup>3</sup>).

(a) Estimated.

PRODUCTION OF ASPHALT ROCK

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
France .. .. .	126,632	125,495	r 111,145	112,082	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) ..	85,757	80,318	74,152	68,380	69,055	70,163
Italy .. .. .	r 293,171	302,089	274,952	209,517	201,422	204,654
Angola .. .. .	29,444	26,600	30,100	38,664	<i>n.a.</i>	<i>n.a.</i>
Indonesia .. .. .	7,153	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

PRODUCTION OF NATURAL ASPHALT, ETC.

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
Trinidad .. .. .	157,226	142,444	136,041	122,495	<i>n.a.</i>	<i>n.a.</i>
OTHER COUNTRIES						
Spain .. .. .	18,755	18,960	17,712	18,759	<i>n.a.</i>	<i>n.a.</i>
Argentina—						
Grahamite ("Rafaelite")	829	681	555	} 2,500	<i>n.a.</i>	<i>n.a.</i>
Impsonite .. .. .	4,880	3,200	771			
Turkey .. .. .	10,672	11,186	25,441	21,042	34,957	35,518

NOTE.—This table is incomplete owing to the fact that official statistics of production of natural asphalt are published by only a few countries.

PRODUCTION OF OIL-SHALE

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
Austria .. .. .	315	589	394	502	512	520
France .. .. .	2,544	r 3,016	r 3,497	3,921	5,000	5,000
Germany (Federal) ..	110,563	108,303	108,434	115,154	121,818	123,773
Spain .. .. .	220,000	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Sweden (a) .. .. .	2,242,370	715,398	714,866	435,966	92,811	94,300

NOTE.—Oil-shale is known to have been produced in U.S.S.R. and Manchuria.

(a) Alum shale.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES\*

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom (a)—</b>						
Aviation and motor spirit	9,297,000	9,272,000	9,809,000	10,377,000	11,454,000	11,638,000
Other spirit .. .. .	172,000	154,000	247,000	195,000	186,000	189,000
Kerosine .. .. .	3,791,000	3,980,000	4,652,000	5,366,000	5,760,000	5,852,000
Gas oil and diesel oil ..	14,663,000	14,005,000	16,874,000	19,170,000	22,159,000	22,515,000
Fuel oil .. .. .	28,668,000	30,282,000	33,718,000	37,661,000	42,181,000	42,858,000
Fuel used in refineries ..	4,568,000	4,673,000	5,073,000	5,547,000	5,933,000	6,028,000
Lubricating oil .. .. .	1,073,000	994,000	1,019,000	1,183,000	1,303,000	1,324,000
Bitumen .. .. .	1,577,000	1,722,000	1,726,000	1,695,000	1,886,000	1,916,000
Paraffin wax .. .. .	57,000	56,000	56,000	58,000	65,000	66,000
<b>Ghana—</b>						
Motor spirit .. .. .	121,158	136,484	137,489	175,830	152,196	154,639
Kerosine .. .. .	46,982	39,989	58,315	64,828	72,210	73,369
Gas oil .. .. .	198,101	201,952	196,485	239,344	241,772	245,652
Fuel oil .. .. .	252,388	264,608	266,877	416,819	316,427	321,506
<b>Kenya—</b>						
Motor spirit .. .. .	252,000	265,000	253,000	288,000	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	172,000	214,000	202,000	267,000	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oil .. ..	311,000	381,000	400,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	36,000	49,000	40,000	54,000	<i>n.a.</i>	<i>n.a.</i>
<b>Barbados—</b>						
Motor spirit .. .. .	11,271	19,816	25,933	28,154	30,746	31,240
Kerosine .. .. .	9,184	13,137	12,829	13,353	11,302	11,484
Gas oil .. .. .	2,923	3,979	2,776	2,834	3,725	3,785
Diesel oil .. .. .	22,748	29,591	29,201	42,546	37,915	38,524
Fuel oil .. .. .	19,000	20,565	21,698	24,673	28,881	29,345
Asphalt .. .. .	4,960	6,080	5,724	5,488	4,238	4,306
<b>Canada (b)—</b>						
Aviation spirit .. .. .	158,212	153,454	164,740	157,286	130,846	132,946
Motor spirit .. .. .	15,588,628	16,120,783	16,981,395	17,813,664	18,770,040	19,071,299
Naphtha .. .. .	282,788	290,769	286,002	277,060	284,546	289,112
Kerosine .. .. .	2,303,135	2,360,522	2,340,912	2,583,483	2,740,689	2,784,677
Aviation turbine fuel ..	1,030,905	1,001,648	1,245,000	1,438,256	1,810,010	1,839,061
Gas oil, etc. .. .. .	8,664,550	8,276,930	8,893,411	9,204,720	9,872,862	10,031,322
Diesel oil .. .. .	5,982,641	6,103,025	6,609,122	6,811,624	7,516,543	7,637,184
Fuel oil .. .. .	9,393,627	9,849,580	10,811,396	11,280,759	12,358,527	12,556,881
Lubricating oil and grease .. .. .	229,877	273,783	r 246,462	274,869	367,121	373,013
Coke .. .. .	185,330	211,401	204,516	198,582	180,787	183,689
Asphalt .. .. .	1,947,483	1,996,847	2,025,421	2,062,698	2,298,387	2,335,256
<b>Jamaica—</b>						
Motor spirit .. .. .	231,646	175,871	182,000	241,000	<i>n.a.</i>	<i>n.a.</i>
Kerosine and jet fuel ..	139,405	96,802	125,000	170,000	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. .. .	265,849	197,819	206,700	941,000	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. .. .	641,868	487,557	580,000		<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	28,529	18,118	20,000	23,600	<i>n.a.</i>	<i>n.a.</i>
<b>Trinidad—</b>						
Aviation spirit .. .. .	223,958	178,831	54,451	61,262	25,140	25,554
Motor spirit .. .. .	2,088,016	2,310,045	2,392,654	2,490,658	2,392,880	2,431,286
White spirit .. .. .	34,715	23,770	892	1,264	1,386	1,408
Kerosine .. .. .	407,068	464,512	468,232	320,011	829,983	843,405
Aviation turbine fuel ..	1,719,014	1,483,213	1,941,371	1,922,455	1,583,914	1,609,336
Gas and diesel oil .. ..	2,764,360	2,668,836	2,509,363	2,255,757	2,000,223	2,032,327
Fuel oil .. .. .	12,255,514	11,542,084	12,387,013	12,874,834	13,316,901	13,530,637

\*This table refers to the more important products obtained and does not include in some cases items classified as "other products". It follows, therefore, that the sum of the products shown for a particular country does not necessarily represent the total refinery production.

(a) Including distillation plants.

(b) Including the amount used in the refineries.

PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Trinidad (cont.)—</b>						
Lubricating oil and greases .. ..	168,785	205,229	152,880	205,280	187,726	190,739
Bitumen .. ..	266,115	272,646	n.a.	n.a.	n.a.	n.a.
Other products .. ..						
<b>Bahrain Islands—</b>						
Motor spirit .. ..	1,155,000	963,000	797,000	920,000	} n.a.	} n.a.
Kerosine .. ..	346,000	295,000	237,000	145,000		
Jet fuel .. ..	1,182,000	1,671,000	1,904,000	1,754,000		
Gas oil and diesel oil ..	1,683,000	1,761,000	1,802,000	2,191,000		
Fuel oil .. ..	4,335,000	5,567,000	5,159,000	5,339,000		
Lubricating oil .. ..	84,000	94,000	157,000	132,000		
Bitumen .. ..	3,000	3,000	6,000	10,000		
<b>India—</b>						
Motor and other spirits	1,231,000	1,305,000	1,356,000	1,362,000	} n.a.	} n.a.
Kerosine .. ..	1,663,000	1,992,000	2,409,000	2,498,000		
Gas and diesel oils .. ..	3,280,000	3,916,000	4,222,000	4,644,000		
Fuel oil, etc. .. ..	3,150,000	3,606,000	3,997,000	4,194,000		
Lubricating oils .. ..	57,000	63,000	61,000	98,000		
Bitumen .. ..	529,000	525,000	567,000	679,000		
<b>Pakistan—</b>						
Motor spirit .. ..	103,000	102,000	110,000	} n.a.	} n.a.	} n.a.
Kerosine .. ..	40,000	41,000	43,000			
Diesel oil .. ..	133,000	128,000	138,000			
Fuel oil .. ..	136,000	136,000	130,000			
Lubricating oil .. ..	18,000	15,000	16,000			
Bitumen .. ..	24,000	20,000	21,000			
<b>Sarawak—</b>						
Motor spirit .. ..	218,500	494,000	596,400	718,000	786,000	799,000
Gas and diesel oils .. ..	368,000	379,900	164,400	195,000	235,000	239,000
Fuel oil .. ..	13,800	90,500	77,800	71,000	238,000	242,000
Feedstocks (b) .. ..	1,741,000	1,680,100	2,049,100	2,123,000	1,856,000	1,886,000
<b>Australia—</b>						
Aviation spirit .. ..	34,664	37,465	34,550	24,333	27,000	27,000
Motor spirit .. ..	5,292,876	5,983,011	6,400,000	6,738,476	7,100,000	7,214,000
Kerosine .. ..	358,487	420,909	507,316	566,872	569,000	578,000
Aviation turbine fuel ..	508,777	671,319	782,109	860,873	1,074,000	1,091,000
Gas and diesel oils .. ..	2,858,383	3,155,132	r 3,469,805	3,976,876	4,055,000	4,120,000
Fuel oil .. ..	5,560,503	5,936,630	r 6,518,401	5,674,811	6,082,000	6,180,000
do. (used in refineries)	1,802,304	2,066,043	2,228,938	2,237,083	2,235,000	2,271,000
Lubricating oil .. ..	261,655	321,749	337,373	316,120	362,000	368,000
Bitumen .. ..	395,596	401,445	405,488	428,274	440,000	447,000
<b>New Zealand—</b>						
Motor spirit .. ..	(a) 1,036,000	(a) 1,040,000	r 1,159,000	1,093,000	} n.a.	} n.a.
Diesel oil .. ..	(a) 441,000	(a) 546,000	r 586,000	589,000		
Fuel oil .. ..	(a) 803,000	(a) 788,000	822,000	849,000		
<b>Irish Republic—</b>						
Motor spirit .. ..	343,000	439,000	460,000	503,000	} n.a.	} n.a.
Jet fuel .. ..	n.a.	25,000	87,000	76,000		
Gas and diesel oils .. ..	458,000	705,000	620,000	620,000		
Fuel oil .. ..	609,000	926,000	900,000	932,000		

(a) Year beginning 1 April of that stated.

(b) Mainly gasoline-type and fuel oil-type.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<b>Albania—</b>						
Motor spirit .. ..	43,000	45,000	46,850	} n.a.	} n.a.	} n.a.
Kerosine .. ..	n.a.	n.a.	11,300			
Diesel oil .. ..	90,000	99,000	109,000			
<b>Austria—</b>						
Motor spirit .. ..	690,341	836,273	851,025	908,000	1,014,580	1,030,861
Kerosine .. ..	91,809	76,620	88,438	93,355	103,312	104,970
Gas oil .. ..	847,007	881,284	1,003,533	1,079,000	1,508,941	1,533,155
Fuel oil .. ..	1,819,897	1,963,689	2,216,418	2,400,000	2,525,879	2,566,412
Lubricating oil ..	203,485	185,427	253,857	265,000	306,802	311,725
Bitumen .. ..	211,623	240,570	236,364	251,000	262,960	267,180
<b>Belgium—</b>						
Aviation spirit and aviation turbine gasoline ..	201,227	201,227	252,924	414,495	346,000	352,000
Motor spirit .. ..	1,923,903	1,922,002	2,501,711	3,021,429	3,520,000	3,577,000
White spirit, etc. ..	113,031	99,314	162,892	n.a.	208,000	211,000
Kerosine, including aviation kerosine .. ..	553,840	589,544	604,235	736,659	832,000	845,000
Gas oil .. ..	2,773,301	2,564,574	4,410,470	6,188,594	} 9,275,000	} 9,424,000
Diesel oil .. ..	1,930,682	2,128,815	2,379,236	2,728,292		
Fuel oil .. ..	5,593,005	5,385,400	7,095,671	8,587,165	11,083,000	11,261,000
Lubricating oil ..	38,000	41,000	53,000	n.a.	53,000	54,000
Bitumen .. ..	455,888	505,000	611,883	656,000	841,000	855,000
<b>Bulgaria—</b>						
Motor spirit .. ..	411,000	586,000	595,000	851,000	} n.a.	} n.a.
Kerosine .. ..	84,000	92,000	98,000	123,000		
Diesel oil .. ..	813,000	925,000	994,000	1,389,000		
Fuel oil .. ..	1,343,000	1,425,000	1,700,000	2,209,000		
Lubricating oil ..	47,000	46,000	49,000	39,000		
<b>Czechoslovakia—</b>						
Motor spirit .. ..	572,000	551,000	733,000	820,000	n.a.	n.a.
Kerosine .. ..	132,000	213,000	207,000	220,000	n.a.	n.a.
Diesel oil .. ..	2,207,000	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Denmark—</b>						
Motor spirit .. ..	r 983,000	r 1,306,000	r 1,318,000	1,588,000	1,269,583	1,289,956
Kerosine .. ..	134,000	192,000	137,000	142,000	172,176	174,939
Diesel oil .. ..	} 3,116,000	} 4,365,000	} 4,805,000	} 6,321,000	870,346	884,313
Fuel oil .. ..					6,557,003	6,662,224
Lubricating oil ..	4,151	4,024	7,000	8,000	1,068	1,085
Grease .. ..	2,054	1,810	n.a.	n.a.	2,965	3,013
Asphalt .. ..	37,892	61,572	106,805	123,000	149,883	152,288
<b>France—</b>						
Motor spirit .. ..	10,135,000	10,947,000	11,335,000	12,064,000	12,870,000	13,080,000
Kerosine and jet fuel ..	1,985,000	2,371,000	2,298,000	2,488,000	2,859,000	2,905,000
Gas and diesel oil ..	6,446,000	5,713,000	5,861,000	8,869,000	9,349,000	9,499,000
Fuel oils .. ..	34,420,000	39,335,000	42,998,000	47,937,000	55,226,000	56,112,000
Lubricating oil ..	875,000	904,000	899,000	1,026,000	1,037,000	1,054,000
Other products (a) ..	4,827,000	6,024,000	6,719,000	7,798,000	n.a.	n.a.
<b>Germany (Federal)—</b>						
Aviation spirit .. ..	1,523,581	1,589,165	1,651,248	n.a.	n.a.	n.a.
Motor spirit .. ..	11,044,838	11,460,374	12,432,909	12,704,203	13,641,055	13,859,959
White spirit .. ..	147,688	128,122	139,272	126,493	126,605	128,638
Kerosine .. ..	805,930	986,698	1,167,340	1,042,573	1,222,229	1,241,842
Diesel oil .. ..	7,995,434	8,191,482	9,082,837	8,869,346	9,614,853	9,769,143
Fuel oil .. ..	42,163,934	44,071,482	49,702,020	54,318,241	60,923,758	61,901,429
Lubricating oil ..	886,265	918,671	1,146,311	1,227,138	1,162,330	1,180,982
Grease .. ..	52,628	44,691	48,467	50,723	44,720	45,438
Paraffin wax .. ..	100,115	100,434	112,923	128,838	133,032	135,167
Coke .. ..	444,244	447,017	562,562	565,579	599,800	609,425
Bitumen .. ..	3,458,583	3,762,346	4,280,429	4,433,571	4,640,484	4,714,950

(a) Other than butane and propane.

PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Greece—</b>						
Motor spirit .. ..	r 295,197	r 373,568	r 460,320	513,000	472,000	480,000
Kerosine .. ..	r 151,092	r 104,030	r 97,595	92,000	49,000	50,000
Aviation spirit .. ..	r 164,824	r 256,939	r 310,985	320,000	338,000	344,000
Diesel oil .. ..	r 743,237	r 1,064,372	r 1,324,559	1,400,000	1,459,000	1,482,000
Fuel oil .. ..	r 1,325,802	r 1,668,446	r 1,677,930	1,700,000	1,654,000	1,681,000
Asphalt .. ..	r 57,749	r 68,935	r 86,871	148,000	n.a.	n.a.
<b>Hungary—</b>						
Motor spirit .. ..	427,000	472,000	568,000	n.a.	n.a.	n.a.
Kerosine .. ..	18,485	2,000	1,000	n.a.	n.a.	n.a.
Diesel oil .. ..	1,115,000	1,241,000	1,369,000	1,501,000	1,694,000	1,721,000
Fuel oil .. ..	1,695,000	1,773,000	1,938,000	2,043,000	2,252,000	2,288,000
Lubricating oils .. ..	118,418	144,000	144,000	159,000	n.a.	n.a.
Grease .. ..	18,660	n.a.	n.a.	n.a.	n.a.	n.a.
Bitumen .. ..	506,000	571,000	560,000	499,000	n.a.	n.a.
<b>Italy—</b>						
Motor spirit .. ..	11,687,624	11,508,450	12,394,239	12,153,370	12,745,065	12,949,591
White spirit .. ..	38,654	43,398	32,193	23,499	20,318	20,644
Kerosine .. ..	2,879,580	3,420,145	4,257,133	4,779,104	5,742,333	5,834,481
Gas oil .. ..	14,023,230	15,706,783	17,494,987	19,573,311	22,652,347	23,015,860
Fuel oil and diesel oil .. ..	41,630,758	42,570,224	44,117,416	48,528,696	53,347,647	54,203,741
Lubricating oil .. ..	435,636	437,508	484,705	516,482	526,128	534,571
Bitumen .. ..	1,278,431	1,459,616	1,677,352	2,003,328	2,138,380	2,172,695
Other products .. ..	2,683,517	1,986,815	1,921,264	2,406,711	2,654,000	2,697,000
<b>Netherlands—</b>						
Motor spirit .. ..	2,214,000	2,154,000	3,331,000	4,033,000	4,542,000	4,615,000
Kerosine .. ..	1,058,000	913,000	1,153,000	1,073,000	1,181,000	1,200,000
Aviation fuels .. ..	1,269,000	1,012,000	1,239,000	1,921,000	2,240,000	2,276,000
Gas and diesel oil .. ..	7,713,000	7,947,000	9,414,000	13,373,000	16,864,000	17,135,000
Residual fuel oil .. ..	13,201,000	14,051,000	15,891,000	21,011,000	25,038,000	25,440,000
Lubricating oil .. ..	333,000	316,000	274,000	494,000	463,000	471,000
<b>Poland—</b>						
Aviation and motor spirit .. ..	805,300	995,200	1,456,400	1,475,300	1,597,000	1,623,000
Kerosine .. ..	20,000	18,700	41,100	49,200	n.a.	n.a.
Gas and diesel oil .. ..	1,080,600	1,243,600	1,661,300	1,910,000	2,176,000	2,211,000
Fuel oil .. ..	1,090,800	1,097,100	1,727,400	2,015,000	1,953,900	1,985,200
Lubricating oil .. ..	180,500	187,800	173,600	173,000	265,000	269,200
Grease .. ..	30,700	29,700	31,100	31,800	32,400	32,900
Paraffin wax .. ..	13,200	13,800	13,900	15,000	14,900	15,100
Bitumen .. ..	299,500	343,600	401,600	478,000	540,000	548,700
<b>Portugal—</b>						
Motor spirit .. ..	392,920	400,979	396,581	454,375	730,941	742,670
Kerosine .. ..	182,076	187,192	199,675	200,106	203,868	207,140
Jet fuel .. ..	73,447	94,500	62,933	60,843	182,815	185,749
Gas and diesel oil .. ..	364,829	362,123	362,811	452,662	744,168	756,110
Fuel oil .. ..	558,356	609,194	597,258	754,063	1,440,256	1,463,368
<b>Roumania—</b>						
Motor spirit .. ..	2,312,000	2,260,000	2,594,000	2,577,000	2,742,000	2,786,000
Kerosine and white spirit .. ..	905,000	908,000	934,000	988,000	954,000	969,000
Gas oil .. ..	3,687,000	3,961,000	4,299,000	4,520,000	4,969,000	5,049,000
Fuel oil .. ..	3,890,000	3,884,000	3,567,000	3,853,000	4,182,000	4,249,000
Bitumen .. ..	364,000	385,000	431,000	498,000	529,000	537,000
<b>Spain (a)—</b>						
Motor spirit .. ..	1,696,000	2,107,000	2,734,000	2,796,000	3,262,000	3,315,000
Kerosine and jet fuel .. ..	476,000	292,000	362,000	343,000	330,859	336,168
Gas oil .. ..	3,197,000	4,501,000	5,915,000	6,303,000	6,659,197	6,766,058
Diesel oil .. ..	250,000	228,000	251,000	231,000	277,057	281,503
Fuel oil .. ..	7,758,000	10,360,000	13,002,000	14,612,000	14,813,672	15,051,394
Lubricating oil .. ..	110,000	123,000	137,000	152,000	199,389	202,589

(a) Includes "Canary Islands" production.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Motor spirit .. ..	483,074	757,847	1,160,000	1,213,010	1,279,000	1,300,000
White spirit etc. ..	26,685	7,977	5,410	1,794	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	27,500	r 100,000	r 233,000	242,000	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	3,144,000	4,230,000	r 6,913,227	7,928,472	8,505,000	8,641,000
Lubricating oil ..	71,123	73,500	80,668	68,318	64,000	65,000
Asphalt .. ..	506,769	583,298	583,947	659,925	<i>n.a.</i>	<i>n.a.</i>
Yugoslavia—						
Motor spirit .. ..	775,554	872,006	920,000	987,000	1,213,000	1,232,000
White spirit .. ..	15,982	16,604	17,600	18,500	20,215	20,540
Kerosine .. ..	92,185	92,579	117,000	139,000	160,632	163,210
Gas oil .. ..	1,124,155	1,367,063	1,358,000	1,696,000	2,058,000	2,091,000
Fuel oil .. ..	1,736,284	1,787,319	1,819,000	1,937,000	2,469,000	2,509,000
Lubricating oil ..	155,309	135,820	101,000	87,000	101,086	102,708
Bitumen .. ..	138,000	168,000	241,000	309,000	352,112	357,762
Other products ..	17,762	19,453	1,702	2,243	2,164	2,199
Angola—						
Motor spirit .. ..	59,166	54,997	64,841	60,722	55,232	56,118
Kerosine .. ..	6,930	7,197	8,124	7,399	17,436	17,716
Jet fuel .. ..	43,371	41,729	46,120	46,117	72,274	73,434
Gas and diesel oil ..	128,838	105,439	133,313	96,835	96,823	98,377
Fuel oil .. ..	336,488	356,896	348,844	383,117	385,493	391,679
Asphalt .. ..	10,697	7,458	11,108	10,516	13,286	13,499
Canary Islands—						
Motor spirit .. ..	584,586	610,785	707,951	639,270	544,979	553,724
Kerosine .. ..	267,425	129,848	184,747	104,869	8,984	9,128
Jet fuel .. ..	<i>n.a.</i>	<i>n.a.</i>	24,505	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	896,163	1,079,443	1,137,219	1,165,928	943,405	958,544
Diesel oil .. ..	230,819	203,581	104,251	224,773	209,920	213,289
Fuel oil .. ..	3,546,668	3,864,101	3,883,070	4,382,867	3,923,967	3,986,935
Lubricating oil ..	58,545	57,454	62,280	<i>n.a.</i>	72,340	73,501
Asphalt .. ..	189,533	137,980	129,454	<i>n.a.</i>	101,034	102,655
Egypt—						
Motor spirit .. ..	835,472	724,590	754,000	436,000	487,100	494,900
Kerosine .. ..	908,823	808,831	619,000	405,000	507,600	515,700
Jet fuel .. ..	23,475					
Gas and diesel oil ..	1,429,559	1,139,713	956,000	476,700	543,800	552,500
Fuel oil .. ..	4,129,710	3,185,494	2,997,000	1,405,700	1,598,100	1,623,700
Asphalt .. ..	131,843	96,850	141,000	40,000	58,200	59,100
Morocco—						
Motor spirit .. ..	240,000	248,000	280,000	306,639	} <i>n.a.</i>	} <i>n.a.</i>
Kerosine .. ..	66,000	65,000	73,000	114,545		
Gas and fuel oils ..	880,000	840,000	848,000	918,000		
Mozambique—						
Motor spirit .. ..	115,692	130,391	140,183	140,579	131,615	133,727
Gas oil .. ..	189,466	220,994	246,916	215,574	188,823	191,853
Fuel oil .. ..	293,917	342,364	361,066	347,119	326,223	331,458
South Africa—						
Motor spirit .. ..	1,562,000	1,897,000	1,817,000	1,999,000	} <i>n.a.</i>	} <i>n.a.</i>
Kerosine .. ..	155,000	153,000	120,000	141,000		
Jet fuel .. ..	111,000	117,000	68,000	74,000		
Gas and diesel oil ..	1,361,000	1,849,000	1,737,000	1,794,000		
Fuel oil .. ..	1,939,000	2,714,000	2,749,000	2,773,000		
Costa Rica—						
Motor spirit .. ..	—	20,554	55,351	58,506	56,034	56,930
Diesel oil .. ..	—	36,559	117,342	122,199	114,753	116,589
Fuel oil .. ..	—	23,066	67,104	83,093	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	—	3,619	15,921	18,382	18,006	18,294



PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES (cont.)</b>						
<b>Guatemala—</b>						
Motor spirit .. ..	136,064	135,125	150,602	146,945	198,092	201,271
Kerosine .. ..	40,227	39,568	43,971	46,050	48,324	49,099
Aviation turbine fuel ..	22,645	22,184	25,674	27,711	30,504	30,993
Diesel oil .. ..	155,564	167,965	204,765	216,900	213,552	216,979
Fuel oil .. ..	194,550	220,788	225,126	256,660	258,725	262,877
<b>Mexico—</b>						
Aviation spirit .. ..	70,715	70,988	58,000	61,154	} n.a.	} n.a.
Motor spirit .. ..	2,838,710	3,113,000	3,300,685	3,468,303		
Kerosine .. ..	1,575,214	1,697,975	1,689,133	1,712,465		
Gas and diesel oil .. ..	4,535,570	5,115,221	5,838,066	6,076,640		
Fuel oil .. ..	5,875,307	6,328,194	6,300,000	6,500,000		
Lubricating oil .. ..	182,030	187,941	176,000	191,780		
Grease .. ..	6,317	8,605	8,859	8,128		
Paraffin wax .. ..	45,424	49,909	41,000	51,034		
Asphalt .. ..	959,000	999,824	1,088,128	1,268,015		
<b>Netherlands Antilles (a)—</b>						
Aviation spirit .. ..	1,138,000	1,062,000	714,534	595,000	474,000	482,000
Motor spirit .. ..	3,109,000	3,248,000	3,089,424	3,378,000	3,500,000	3,556,000
White spirit .. ..	50,000	61,000	34,447	13,000	4,000	4,000
Kerosine .. ..	444,000	530,000	726,344	547,000	357,000	363,000
Aviation turbine fuel ..	3,641,000	4,168,000	4,053,946	4,192,000	3,516,000	3,572,000
Gas oil .. ..	3,701,000	2,790,000	1,715,472	2,026,000	2,323,000	2,360,000
Diesel oil .. ..	1,396,000	1,466,000	1,853,261	1,210,000	1,382,000	1,404,000
Fuel oil .. ..	19,453,000	20,579,000	21,469,470	23,840,000	27,312,000	27,750,000
Lubricating oil .. ..	654,000	420,000	483,245	358,000	436,000	443,000
Asphalt .. ..	934,000	999,000	1,080,659	1,022,000	1,011,000	1,027,000
<b>Nicaragua—</b>						
Motor spirit .. ..	85,000	92,000	100,000	75,000	} n.a.	} n.a.
Kerosine .. ..	22,000	28,000	28,000	28,000		
Gas and diesel oil .. ..	69,000	82,000	101,000	91,000		
Fuel oil .. ..	66,000	82,000	99,000	92,000		
<b>Panama—</b>						
Motor spirit .. ..	335,000	322,000	351,000	359,000	} n.a.	} n.a.
Kerosine .. ..	75,000	110,000	51,000	76,000		
Jet fuel .. ..	65,000	165,000	102,000	240,000		
Gas and diesel oil .. ..	861,000	662,000	660,000	760,000		
Fuel oil .. ..	1,268,000	1,490,000	1,473,000	1,953,000		
<b>Salvador—</b>						
Motor spirit .. ..	114,000	122,810	108,000	66,000	} n.a.	} n.a.
Kerosine .. ..	n.a.	64,954	46,000	29,000		
Diesel oil .. ..	146,000	150,322	145,000	75,000		
<b>United States—</b>						
Aviation spirit .. ..	} 209,000,000	} 212,000,000	} 223,872,000	2,940,000	2,190,000	2,225,000
Motor spirit .. ..				229,702,000	239,325,000	243,164,000
Kerosine (b) .. ..	40,418,000	47,556,000	53,009,000	54,037,000	50,607,000	51,419,000
Jet fuels (military) ..						
Distillate fuel oil .. ..	106,628,000	109,198,000	114,068,000	115,116,000	121,723,000	123,675,000
Residual fuel oil .. ..	38,494,000	40,244,000	40,223,000	38,778,000	37,554,000	38,156,000
Lubricating oil .. ..	9,157,000	9,082,000	9,196,000	9,111,000	9,266,000	9,415,000
Paraffin wax .. ..	722,000	715,000	736,000	756,000	787,000	800,000
Coke .. ..	15,724,000	16,238,000	16,998,000	18,369,000	19,263,000	19,572,000
Asphalt .. ..	21,036,000	20,741,000	21,990,000	22,028,000	23,808,000	24,190,000
Road oil .. ..	1,153,000	1,110,000	1,086,000	1,445,000	1,494,000	1,518,000
<b>Argentina—</b>						
Aviation spirit .. ..	50,800	60,800	38,758	45,000	} n.a.	} n.a.
Motor spirit .. ..	3,300,000	3,409,500	3,476,403	3,897,000		
Kerosine .. ..	907,900	853,900	798,790	n.a.		
Gas oil .. ..	2,402,600	2,518,200	2,675,600	n.a.		
Diesel oil .. ..	1,187,900	1,169,700	1,223,400	n.a.		
Fuel oil .. ..	7,876,700	7,727,700	7,896,500	n.a.		
Lubricating oil .. ..	128,800	115,000	105,900	n.a.		

(a) Exports.

(b) Including commercial jet fuel.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bolivia—</b>						
Motor spirit .. ..	155,070	173,000	189,000	211,681	214,422	217,863
Kerosine .. ..	72,663	83,000	89,000	94,389	101,507	103,136
Diesel oil .. ..	74,222	91,000	85,000	83,608	87,731	89,139
Fuel oil .. ..	125,775	118,000	150,000	139,684	137,210	139,412
<b>Brazil—</b>						
Motor spirit .. ..	4,756,000	4,798,000	5,371,000	6,144,915	6,887,885	6,998,367
Kerosine .. ..	608,000	767,000	983,957	1,195,039	1,272,566	1,292,978
Diesel oil .. ..	3,891,000	4,058,000	4,794,936	5,194,919	5,695,595	5,786,952
Fuel oil .. ..	5,635,000	5,882,000	6,844,107	8,228,278	8,305,420	8,438,697
Lubricating oil .. ..	—	—	5,000	9,000	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	3,231	131	5,000	7,000	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. ..	394,533	495,389	662,395	638,393	691,203	702,295
<b>Chile—</b>						
Aviation spirit .. ..	} 860,000	} 975,000	} 1,007,900	} 1,138,000	} 1,117,000	} 1,135,000
Motor spirit .. ..						
Kerosine .. ..						
Diesel oil .. ..						
Fuel oil .. ..	} 1,320,000	} 1,530,000	} 1,759,900	} 1,795,000	} 1,541,000	} 1,565,700
<b>Colombia—</b>						
Aviation spirit .. ..	131,000	82,847	76,049	68,813	62,052	63,047
Motor spirit .. ..	1,525,000	1,475,979	1,537,472	1,581,712	1,761,063	1,789,310
Kerosine .. ..	268,000	323,274	376,479	400,478	451,945	459,194
Jet fuel .. ..	50,000	66,892	106,264	138,036	164,433	167,071
Gas oil .. ..	<i>n.a.</i>	40,322	37,853	23,508	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	647,000	728,702	984,240	897,992	858,310	872,083
Fuel oil .. ..	1,669,000	2,110,210	2,406,399	2,279,776	2,303,000	2,340,000
Lubricating oil and grease .. ..	60,600	58,107	59,161	65,444	79,734	81,013
Coke .. ..	<i>n.a.</i>	125,463	160,069	147,329	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. ..	68,900	94,032	122,512	110,582	109,737	111,497
<b>Ecuador—</b>						
Motor spirit .. ..	248,000	261,251	319,000	296,568	355,656	361,363
Kerosine .. ..	60,600	63,412	} 123,000	{ 79,432	} 62,261	} 63,260
Aviation turbine fuel .. ..	28,710	38,942				
Diesel oil .. ..	143,000	164,055	204,000	208,717	249,941	253,952
Residual fuel oil .. ..	219,000	226,516	277,000	339,622	339,731	345,183
<b>Peru—</b>						
Aviation spirit .. ..	4,000	4,000	5,000	3,000	} <i>n.a.</i>	} <i>n.a.</i>
Motor spirit .. ..	791,000	837,000	1,182,000	1,128,000		
Kerosine .. ..	439,000	463,000	490,000	480,000		
Aviation turbine fuel .. ..	131,000	150,000	167,000	180,000		
Diesel oil .. ..	803,000	780,000	890,000	929,000		
Fuel oil .. ..	841,000	897,000	1,210,000	1,205,000		
Lubricating oil and grease .. ..	11,000	11,000	9,000	9,000		
<b>Uruguay—</b>						
Motor spirit .. ..	263,815	261,064	229,996	260,358	258,200	262,300
Kerosine .. ..	165,992	159,522	133,205	158,779	166,000	168,700
Aviation turbine fuel .. ..	16,459	18,894	17,076	23,024	23,000	23,400
Gas oil .. ..	234,297	234,927	210,029	270,904	294,000	298,700
Diesel oil .. ..	70,219	59,437	48,146	52,003	58,000	58,900
Fuel oil .. ..	701,573	701,059	567,666	675,293	680,000	690,900
Lubricating oil .. ..	470	144	286	344	350	360
Asphalt .. ..	20,100	13,000	23,315	30,170	38,000	38,600
<b>Venezuela—</b>						
Motor spirit .. ..	5,808,000	5,923,000	6,664,000	6,912,000	7,500,000	7,620,000
Kerosine .. ..	772,000	641,000	603,000	714,000	550,000	559,000
Gas and diesel oils .. ..	9,766,000	8,253,000	9,357,000	7,489,000	7,481,000	7,601,000
Fuel oil .. ..	37,777,000	37,300,000	37,700,000	37,553,000	43,390,000	44,086,000
Lubricating oil .. ..	524,000	530,000	588,000	501,000	539,000	548,000
Asphalt .. ..	787,000	870,000	870,000	767,000	810,000	823,000

PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes	
	1966	1967	1968	1969	1970	1970	
<b>OTHER COUNTRIES (cont.)</b>							
<b>Burma—</b>							
Motor spirit .. ..	155,000	168,000	154,000	163,000	159,000	162,000	
Kerosine .. ..	188,000	178,000	231,000	237,000	269,000	273,000	
Jet fuel (b) .. ..	9,000	29,000	14,000	21,600	291,000	296,000	
Diesel oil .. ..	223,000	219,000	237,000	249,000			
Paraffin wax .. ..	17,000	16,000	18,000	18,000	n.a.	n.a.	
<b>Formosa—</b>							
Aviation spirit .. ..	314,000	332,000	348,000	437,000	518,500	527,000	
Motor spirit .. ..		27,100	20,600	21,800	15,900	20,100	20,400
Kerosine .. ..		321,600	415,500	r 456,400	735,000	990,200	1,006,000
Diesel oil .. ..		1,080,400	1,127,600	r1,636,500	2,169,000	2,451,700	2,491,000
Fuel oil .. ..		17,100	17,300	22,500	27,400	44,900	45,600
Lubricating oil .. ..		78,384	96,892	116,777	118,700	150,300	152,700
Asphalt .. ..							
<b>Indonesia—</b>							
Aviation spirit .. ..	16,000	16,000	n.a.	n.a.	n.a.	n.a.	
Motor spirit .. ..	1,229,000	1,304,000	n.a.	n.a.	n.a.	n.a.	
Kerosine .. ..	1,262,000	1,399,000	n.a.	n.a.	n.a.	n.a.	
Fuel oil .. ..	2,086,000	2,580,000	n.a.	n.a.	n.a.	n.a.	
Jet fuel .. ..	177,000	143,000	n.a.	n.a.	n.a.	n.a.	
Gas and diesel oils .. ..	1,489,000	1,539,000	n.a.	n.a.	n.a.	n.a.	
<b>Iran (a)—</b>							
Aviation spirit .. ..	725,000	722,000	728,000	721,000	638,700	649,000	
Motor spirit .. ..	1,996,000	2,025,000	2,192,000	2,278,000	2,207,000	2,242,000	
Kerosine .. ..	1,805,000	1,865,000	1,981,000	2,039,000	1,917,000	1,948,000	
Aviation turbine fuel .. ..	1,292,000	1,263,000	1,547,000	1,621,000	1,559,000	1,584,000	
Gas and diesel oils .. ..	3,034,000	3,019,000	3,272,000	3,221,000	3,404,000	3,459,000	
Fuel oil .. ..	8,462,000	8,925,000	8,497,000	8,878,000	9,276,000	9,425,000	
Lubricating oil .. ..	52,000	46,000	51,000	50,000	56,000	57,000	
Bitumen .. ..	222,000	310,000	269,000	289,000	262,000	266,000	
<b>Iraq—</b>							
Motor spirit .. ..	310,000	265,000	376,000	n.a.	n.a.	n.a.	
Kerosine .. ..	462,000	400,000	561,000				
Aviation turbine fuel .. ..	n.a.	n.a.	59,000				
Gas oil .. ..	719,000	541,000	769,000				
Diesel oil .. ..							
Fuel oil .. ..	849,000	1,225,000	1,218,000				
<b>Israel—</b>							
Motor spirit .. ..	(b) 477,000	557,000	688,000	727,300	467,000	474,000	
Kerosine .. ..	(b) 252,000	(b) 282,000	636,000	696,000	542,000	551,000	
Gas and diesel oils .. ..	(b) 903,000	1,146,000	1,041,000	1,126,000	1,163,000	1,080,000	
Fuel oil .. ..	(b) 1,424,000	1,963,000	1,789,000	2,290,000	2,441,000	2,480,000	
<b>Japan—</b>							
Aviation spirit .. ..	9,080,000	10,413,000	11,824,000	13,328,880	15,064,000	15,305,800	
Motor spirit .. ..		5,062,000	6,918,000	8,383,000	10,328,242	13,995,600	14,220,200
Kerosine .. ..		1,198,000	1,951,000	2,381,450	2,678,375	1,917,000	1,947,800
Jet fuel .. ..		6,068,000	6,853,000	7,897,000	8,832,572	10,234,000	10,398,300
Gas oil .. ..		3,368,000	4,167,000	5,390,000	n.a.	n.a.	n.a.
Diesel oil .. ..		45,630,000	55,683,000	63,000,000	75,115,000	93,099,000	94,593,000
Fuel oil .. ..		1,152,000	1,308,000	1,496,000	1,748,000	2,056,000	2,089,000
Lubricating oil .. ..		82,000	78,725	88,000	n.a.	n.a.	n.a.
Paraffin wax .. ..		n.a.	1,800,391	2,035,000	n.a.	n.a.	n.a.
Asphalt .. ..							
<b>Jordan—</b>							
Motor spirit .. ..		76,153	70,707	70,569	88,278	95,491	97,023
Kerosine .. ..		69,505	68,882	64,784	73,183	70,333	71,462
Gas oil .. ..		133,772	117,505	119,850	128,430	100,483	102,095
Fuel oil .. ..		89,527	89,532	87,616	115,948	126,024	128,046
Asphalt .. ..	40,498	29,895	33,053	38,173	27,241	27,678	

(a) Abadan Refinery only.

(b) Estimated.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Korea (South)—</b>						
Motor spirit .. ..	233,000	316,000	444,000	552,000	644,800	655,100
Kerosine .. ..	93,437	172,897	251,364	281,000	395,200	401,500
Jet fuel .. ..	94,117	106,897	250,000	389,700	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	527,598	557,787	1,057,000	1,266,000	1,538,000	1,563,000
Fuel oil .. ..	762,947	1,061,478	2,361,000	3,618,000	5,508,000	5,596,000
<b>Kuwait—</b>						
Motor spirit .. ..	218,000	260,000	276,000	264,000	} <i>n.a.</i>	} <i>n.a.</i>
Kerosine .. ..	85,000	92,000	97,000	120,000		
Gas and diesel oils ..	2,739,000	2,401,000	2,646,000	2,348,000		
Fuel oil .. ..	6,312,000	6,301,000	6,619,000	6,215,000		
Bitumen .. ..	26,000	35,000	33,000	19,000		
<b>Lebanon—</b>						
Motor spirit .. ..	248,000	298,000	342,000	341,000	368,500	374,400
Kerosine .. ..	153,000	177,000	187,000	203,500	208,300	211,600
Gas oil .. ..	226,000	265,000	276,000	312,700	332,600	337,900
Fuel oil .. ..	725,810	877,000	355,000	869,700	943,100	958,200
<b>Philippine Republic—</b>						
Motor spirit .. ..	1,193,000	1,427,000	1,574,000	1,671,000	1,790,000	1,819,000
Kerosine .. ..	426,000	} 364,000	392,000	440,000	429,000	436,000
Jet fuel .. ..	<i>n.a.</i>		303,000	344,000	344,000	350,000
Gas and diesel oil ..	1,060,000	1,293,000	1,540,000	1,744,000	1,870,000	1,900,000
Fuel oil .. ..	1,991,000	2,420,000	3,002,000	3,112,000	3,430,000	3,485,000
<b>Saudi Arabia—</b>						
Aviation spirit .. ..	36,279	13,000	16,098	17,637	} 3,938,817	} 4,001,996
Motor spirit .. ..	2,025,421	2,340,000	2,805,294	2,915,673		
Kerosine .. ..	244,537	364,000	392,097	405,941		
Jet fuel .. ..	1,307,877	1,200,000	1,677,024	1,777,012		
Diesel oil .. ..	2,191,489	2,216,000	2,561,858	3,497,233		
Fuel oil .. ..	8,798,702	9,421,000	11,137,972	11,703,309	16,562,289	16,827,948
Asphalt, etc. .. ..	104,010	<i>n.a.</i>	130,699	141,684	154,811	157,294
<b>Southern Yemen—</b>						
Motor spirit etc. .. ..	488,000	327,000	340,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	732,000	532,000	566,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oil ..	1,246,000	996,000	590,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	3,557,000	2,915,000	2,600,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other products .. ..	612,000	405,000	602,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Syria—</b>						
Motor spirit .. ..	163,000	165,000	157,000	197,000	} <i>n.a.</i>	} <i>n.a.</i>
Kerosine .. ..	142,000	169,000	161,000	202,000		
Gas and diesel oil ..	277,000	250,000	238,000	296,000		
Fuel oil .. ..	407,000	448,000	475,000	592,000		
<b>Turkey—</b>						
Motor spirit .. ..	750,000	784,324	898,340	907,000	962,000	977,000
Kerosine .. ..	415,000	386,011	466,100	416,000	436,000	443,000
Jet fuel .. ..	80,000	172,605	157,634	159,000	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	1,282,000	1,249,759	1,480,384	1,375,000	1,610,000	1,636,000
Fuel oil .. ..	1,900,000	2,266,277	2,694,395	2,900,000	3,251,000	3,303,000
Asphalt .. ..	137,000	182,929	183,440	219,000	193,000	196,000

EXPORTS OF PETROLEUM AND ALLIED PRODUCTS\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Crude petroleum ..	125,485	189,316	328,251	435,849	1,333,852	1,355,260
Aviation spirit ..	143,471	146,856	144,153	68,445	57,164	58,081
Aviation turbine fuel (d) ..	373,776	288,820	256,561	90,260	150,824	153,245
Motor spirit ..	1,000,728	994,414	919,095	868,685	926,774	941,649
Other spirit ..	150,725	163,282	147,407	262,364	337,915	343,338
Kerosine (a) ..	724,566	739,497	924,172	997,058	1,123,089	1,141,115
Gas oil ..	3,482,086	3,445,056	4,653,007	4,999,113	5,546,308	5,635,326
Diesel oil ..	488,367	362,247				
Fuel oil ..	4,753,153	4,568,421	6,153,546	5,903,538	7,904,548	7,779,684
Lubricating oil ..	538,668	503,843	553,686	580,287	630,988	641,115
Greases (c) ..	30,873	30,878	32,926	34,924	24,486	24,879
Other heavy oils ..	3,053	1,914	—	—	—	—
Petroleum jelly ..	1,072	706	790	1,356	1,154	1,173
Petroleum waxes ..	3,428	3,883	3,041	3,314	3,978	4,042
<b>Malta (bunkers) (b)—</b>						
Aviation spirit ..	9,066	5,157	4,638	6,705	5,728	5,820
Aviation turbine fuel ..	66,630	56,772	74,559	59,010	71,080	72,221
Gas oil ..	4,968	7,488	10,612	12,787	9,278	9,427
Diesel oil ..	8,772	10,583	14,743	9,877	12,900	13,107
Fuel oil ..	21,506	45,549	25,153	23,875	17,954	18,242
<b>Ghana—</b>						
Gas oil (bunkers) ..	10,563	14,555	27,070	27,254	34,537	35,091
Diesel oil (bunkers) (b) ..	7,016	6,606	132	238	n.a.	n.a.
Fuel oil ..	206,257	233,331	200,994	265,386	88,199	89,614
Lubricating oil (bunkers) (b) ..	262	403	695	840	917	932
<b>Kenya—</b>						
Aviation spirit (bunkers) (b) ..	2,091	1,374	400	584	372	378
Motor spirit ..	27,503	28,526	219,374	17,933	19,705	20,021
do. (bunkers) ..	13	1	3	43	3	3
Aviation turbine fuel (bunkers) ..	78,959	83,995	56,845	153,639	162,752	165,364
Kerosine ..	7,713	7,888	5,808	5,643	7,411	7,530
Gas, diesel and fuel oils do. bunkers ..	391,742	271,857	171,655	204,038	321,868	327,033
Lubricating oil (bunkers) (b) ..	171,183	518,828	542,497	427,960	393,945	400,267
Asphalt and bitumen ..	616	1,252	1,224	950	1,543	1,568
Asphalt and bitumen ..	16,107	17,074	13,057	9,765	9,675	9,830
<b>Mauritius (bunkers) (b)—</b>						
Aviation spirit ..	2,111	1,074	132	43	40	41
Aviation turbine fuel ..	3,150	8,071	12,076	12,379	16,288	16,549
Fuel oils ..	25,707	74,216	114,729	88,129	92,298	93,779

\*Excluding the United Kingdom, the following rates have been used for converting Imperial gallons to long tons and to tonnes (in brackets): Aviation spirit 315 (310), Motor spirit 305 (300), Aviation turbine fuel 275 (271), White spirit 280 (276) Kerosine 275 (271), Gas oil 260 (256), Diesel oil 256 (252), Fuel oil 240 (236), Lubricating oil 250 (246), Asphalt 220 (216), Road oil 220 (216), Crude petroleum 245 (241), (except for countries mentioned in footnote (b) on page 237).

(a) Including kerosine jet type fuel.

(b) Foreign produce. See imports.

(c) Including cable impregnating compounds.

(d) Wide cut gasoline.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
Nigeria—						
Crude petroleum ..	18,945,374	14,773,521	6,889,548	26,550,577	50,883,400	51,700,079
Motor spirit ..	51,520	15,511	9,845	103	n.a.	n.a.
do. (bunkers) ..	743	—	—	—	n.a.	n.a.
Aviation spirit ..	1,415	5,269	2,233	5	n.a.	n.a.
do. (bunkers) ..	96	237	—	—	n.a.	n.a.
do. do. (a) ..	992	421	—	—	n.a.	n.a.
Aviation turbine fuel ..	3,066	2,943	3,550	22	n.a.	n.a.
do. (bunkers) ..	365	713	—	—	n.a.	n.a.
do. do. (a) ..	1,743	291	4,678	13,495	n.a.	n.a.
Kerosine ..	745	7,707	1,261	—	n.a.	n.a.
do. (bunkers) ..	29	65	—	—	n.a.	n.a.
Gas oil ..	22,709	9,702	3,683	6	n.a.	n.a.
do. (bunkers) ..	2,275	3,009	463	—	n.a.	n.a.
Diesel oil ..	4,601	9,375	3,869	—	n.a.	n.a.
do. (bunkers) ..	374	201	—	—	n.a.	n.a.
do. do. (a) ..	77	—	4,360	9,725	n.a.	n.a.
Fuel oil ..	74,267	59,239	3,569	1,190	n.a.	n.a.
do. (bunkers) ..	5,695	8,139	163	1,950	n.a.	n.a.
do. do. (a) ..	6,720	3,328	6,065	11,135	n.a.	n.a.
Asphalt and bitumen ..	8,435	3,942	1,448	1,043	n.a.	n.a.
Tanzania—						
Motor spirit ..	3,649	91,237	124,260	132,166	132,729	134,859
Aviation turbine fuel ..	(a) 9,529	12,907	14,790	18,322	28,762	29,224
do. (bunkers) ..	n.a.	10,082	19,943	4,402	3,431	3,486
Kerosine ..	620	9,097	12,004	14,522	18,441	18,737
Gas, diesel and fuel oils ..	41,624	210,103	366,476	343,804	406,890	413,012
do. (bunkers) ..	3,443	6,559	9,149	5,141	27,672	28,116
Uganda (bunkers) (a)—						
Aviation spirit ..	1,237	480	84	388	402	409
Canada—						
Crude petroleum ..	17,670,192	20,045,942	22,331,729	26,312,099	32,117,650	32,633,057
Motor spirit ..	49,553	48,894	47,262	50,602	64,605	65,642
Fuel oil ..	345,683	495,403	686,755	878,608	1,459,611	1,483,034
Lubricating oil (c) ..	5,877	6,331	3,823	2,597	2,304	2,341
Liquified petroleum gas ..	822,613	988,373	1,074,810	1,265,756	1,655,264	1,681,826
Petroleum coke (d) ..	8,632	16,644	7,532	2,327	47,579	48,343
Natural gas (million cu.ft.)	426,223	505,165	607,355	669,816	768,113	(b) 21,750
Barbados (bunkers)—						
Aviation spirit (a) ..	1,320	3,271	794	2,079	624	634
Aviation turbine fuel (a) ..	22,062	14,281	7,461	7,838	20,849	21,184
Gas, diesel and fuel oils ..	7,638	4,157	3,164	614	4,612	4,686
Do. do. (a) ..	278,732	156,185	94,811	64,359	124,476	126,474
Bermuda (bunkers) (a) (e)						
Aviation spirit ..	7,191	6,400	14,516	4,031	n.a.	n.a.
Motor spirit ..	2,924	3,167	1,534	1,314	n.a.	n.a.
Aviation turbine fuel ..	74,829	85,561	92,495	103,878	n.a.	n.a.
Kerosine ..	220	171	164	146	n.a.	n.a.
Fuel and Diesel oil ..	31,718	21,419	21,829	33,413	n.a.	n.a.
Lubricating oil ..	16	9	34	9	n.a.	n.a.

(a) Foreign produce. See imports.

 (b) Million m<sup>3</sup>.

(c) Including grease.

(d) Including pitch coke.

(e) Including bunkers for military forces.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Tonnes

Exporting Country and Description	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Jamaica—</b>						
Aviation spirit (bunkers) (a)	267	<i>n.a.</i>	(b) 4,385	(a) 13,834	} <i>n.a.</i>	} <i>n.a.</i>
Motor spirit .. ..	112,898	56,321	31,061	45,665		
Kerosine .. ..	21,216	9,770	4,359	7,669		
do. (bunkers) .. ..	(a) 53,515	<i>n.a.</i>	<i>n.a.</i>	5,526		
Gas oil .. ..	1	(e)	520	6,799		
do. (bunkers) .. ..	(a) 1,718	<i>n.a.</i>	(b) 14,933	5,526		
Diesel oil .. ..	83,167	(e)	40,927	52,205		
do. (bunkers) .. ..	20,467	<i>n.a.</i>	(b) 19,869	13,916		
Fuel oil .. ..	17,548	107,297	49,342	36,951		
do. (bunkers) .. ..	(a) 128,985	<i>n.a.</i>	(a) 129,294	106,822		
Lubricating oil .. ..	18,252	10,572	19,609	17,932		
<b>Trinidad and Tobago—</b>						
Crude petroleum .. ..	1,449,325	1,752,295	1,942,362	2,139,530	1,419,094	1,441,870
Aviation spirit (c) .. ..	2,152,296	2,038,187	2,533,868	2,328,425	2,765,165	2,809,546
do. (bunkers) .. ..	32,620	28,323	35,635	47,289	37,305	37,904
Motor spirit .. ..	1,002,936	1,156,517	1,096,978	904,789	965,507	981,003
do. (bunkers) .. ..	437	941	24	23	—	—
Kerosine .. ..	18,962	7,168	12,582	15,375	11,550	11,735
do. (bunkers) .. ..	136	81	46	51	47	48
Gas oil .. ..	584,101	434,902	120,762	176,148	110,911	112,691
do. (bunkers) .. ..	45,971	54,773	54,218	40,072	31,501	32,007
Diesel oil .. ..	1,803,173	1,833,187	2,120,591	1,832,054	1,736,640	1,764,513
do. (bunkers) .. ..	131,697	165,959	155,617	147,571	172,566	175,336
Fuel oil .. ..	9,536,221	9,757,602	11,073,309	11,876,753	10,031,242	10,192,243
do. (bunkers) .. ..	1,152,768	1,049,038	1,388,553	1,246,422	1,339,724	1,361,227
Lubricating oil .. ..	154,277	141,246	171,488	191,431	176,217	179,045
Road oil .. ..	9,224	7,697	6,908	5,970	7,099	7,213
<b>Asphalt—</b>						
Dried .. ..	63,935	59,284	54,216	44,916	59,495	60,450
Asphalt cement .. ..	1,766	545	465	2,070	1,692	1,719
Bituminous asphalt .. ..	15,367	22,173	17,228	16,524	12,078	12,272
<b>Abu Dhabi —</b>						
Crude petroleum .. ..	12,135,404	12,157,754	14,758,077	16,781,085	20,155,669	20,479,167
<b>Bahrain Islands—</b>						
Aviation and motor spirit .. ..	1,152,000	942,000	790,000	839,000	} <i>n.a.</i>	} <i>n.a.</i>
Aviation turbine fuel .. ..	1,049,000	1,399,000	1,585,000	1,477,000		
Kerosine .. ..	431,000	406,000	447,000	154,000		
Diesel oil .. ..	1,703,000	1,628,000	1,710,000	1,944,000		
Fuel oil .. ..	3,299,000	4,255,000	4,150,000	4,835,000		
do. (bunkers) .. ..	1,027,000	1,300,000	1,053,000	962,000		
Asphalt .. ..	2,000	1,000	1,000	5,000		
<b>Brunei—</b>						
Crude petroleum (d) .. ..	4,544,422	4,973,838	5,842,863	5,965,564	<i>n.a.</i>	<i>n.a.</i>
<b>Ceylon (bunkers) (a)—</b>						
Aviation spirit .. ..	—	22,274	11,978	7	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	4,181	9,788	5,865	4,123	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	27,266	31,580	61,159	59,233	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	203,505	456,700	499,043	280,166	<i>n.a.</i>	<i>n.a.</i>
<b>Cyprus (bunkers) (a)—</b>						
Aviation spirit .. ..	1,478	1,357	1,308	785	450	457

(a) Foreign produce. See imports.

(b) Including foreign produce.

(c) Including J.P.4 type aviation turbine fuel.

(d) Exported to Sarawak for refining. Some, however, is re-exported from Sarawak and shown as exports from that country.

(e) Included with fuel oil.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
India (a)—						
Motor spirit .. .. .	} n.a.	n.a.	n.a.	155,352	82,698	84,025
Other spirit .. .. .						
Malaysia (West)—						
Crude petroleum .. .. .	259,866	313,807	493,897	434,340	337,226	342,638
Aviation spirit .. .. .	117	2,725	89	1,248	—	—
do. do. (bunkers) .. .. .	16,158	12,113	14,322	n.a.	26,081	26,500
Motor spirit .. .. .	104,741	92,219	167,988	94,640	83,567	84,908
Aviation turbine fuel .. .. .	22,675	40,622	5,209	47	76	77
Kerosine .. .. .	32,271	20,090	104,540	95,509	91,685	93,157
Gas oil .. .. .	36,031	72,299	70,176	110,008	92,562	94,048
Diesel oil .. .. .	71,789	62,336	38,606	17,834	14,325	14,555
Fuel oil .. .. .	309,915	246,188	188,296	154,627	232,259	235,987
Fuel and diesel oil (bunkers) .. .. .	44,578	57,149	52,570	n.a.	33,696	34,237
Petroleum coke .. .. .	53,336	—	—	—	—	—
Asphalt and bitumen .. .. .	4,400	12,519	12,401	4,716	11,789	11,978
Qatar (e)—						
Crude petroleum .. .. .	8,936,394	8,909,704	9,058,678	9,211,244	8,987,645	9,131,897
Sabah—						
(bunkers) (b)—						
Aviation spirit .. .. .	458	6,548	9,248	8,682	9,136	9,283
Fuel oil .. .. .	400	11,798	10,801	9,228	n.a.	n.a.
Sarawak—						
Crude petroleum (c) .. .. .	2,374,797	2,716,036	3,512,411	n.a.	n.a.	n.a.
Motor spirit (d) .. .. .	373,402	93,927	90,678	n.a.	n.a.	n.a.
Kerosine .. .. .	141,097	208,621	111,646	n.a.	n.a.	n.a.
Aviation turbine fuel .. .. .	138,291	477,603	578,887	n.a.	n.a.	n.a.
Gas oil .. .. .	138,899	138,542	128,243	n.a.	n.a.	n.a.
Diesel oil .. .. .	9,615	13,087	15,304	n.a.	n.a.	n.a.
Fuel oil .. .. .	1,314,507	1,327,893	1,400,178	n.a.	n.a.	n.a.
do. (bunkers) (f) .. .. .	23,959	20,882	15,438	n.a.	n.a.	n.a.
Singapore—						
Crude petroleum .. .. .	9,782	5	11,355	124	6,758	6,866
Aviation spirit .. .. .	269,114	287,206	317,247	411,443	229,243	232,922
do. (bunkers) .. .. .	66,712	65,273	73,082	87,863	97,013	98,570
Motor spirit .. .. .	889,708	851,307	1,102,998	1,149,607	1,300,562	1,321,436
White spirit .. .. .	29,050	103,762	25,575	49,778	37,526	38,128
Aviation turbine fuel .. .. .	1,242,362	1,681,216	1,922,616	2,311,394	1,903,134	1,933,679
Kerosine .. .. .	267,891	340,052	340,518	525,509	519,963	528,308
Gas oil .. .. .	1,065,994	1,220,614	1,811,756	1,825,626	1,641,010	1,667,348
Diesel oil .. .. .	461,577	492,696	482,098	459,670	663,852	674,507
Fuel oil .. .. .	2,788,929	3,211,728	4,104,655	4,654,974	5,545,450	5,634,454
Fuel and diesel oil (bunkers) .. .. .	3,022,486	3,519,190	4,065,527	3,984,078	3,831,875	3,893,377
Lubricating oil .. .. .	95,104	98,170	113,372	138,687	142,151	144,432
Asphalt and bitumen .. .. .	50,271	55,212	80,915	73,861	110,011	112,793

(a) Years ended March 31 following that stated.

(b) Foreign produce. See imports.

(c) Including crude petroleum imported from Brunei as well as enriched waxy crude.

(d) Excluding motor spirit blended with crude petroleum and exported as enriched waxy crude.

(e) British Protected State.

(f) Including diesel oil bunkers.



## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
Australia (a)—						
Aviation spirit ..	5,626	3,360	11,572	376	369	375
do. do. (bunkers) ..	13,619	605	906	15	32	33
do. do. do. (d) ..	3,316	822	260	706	812	825
Motor spirit ..	46,336	128,540	217,962	197,586	148,508	150,891
Kerosine ..	11,413	12,539	22,360	5,527	14,703	14,939
Aviation turbine fuel ..	70,559	45,516	101,579	65,595	117,556	119,443
do. (bunkers) ..	112,942	24,787	58,335	69,591	83,040	84,373
do. do. (d) ..	13,887	82,799	109,378	115,855	151,859	154,296
Lubricating oil ..	62,046	90,669	94,679	99,216	92,450	93,934
Diesel and fuel oils ..	744,030	878,803	688,037	479,144	692,705	703,821
Fuel oil (bunkers)—						
Domestic produce ..	785,614	878,028	1,281,811	1,216,532	1,253,199	1,273,309
Foreign produce ..	2,506	3,230	9,256	20,077	5,053	5,134
Fiji (bunkers)(d)—						
Aviation spirit ..	1,574	3,079	1,028	352	} n.a.	} n.a.
Aviation turbine fuel ..	53,681	60,076	81,627	69,380		
Diesel oil ..	11,755	12,856	14,623	10,052		
Gas oil ..	2,797	2,387	4,379	5,057		
Fuel oil ..	11,574	761	2,208	15,488		
New Zealand (a)—						
Diesel oil ..	1,340	309	3,451	507	} n.a.	} n.a.
do. (bunkers) ..	90,809	99,576	106,918	118,735		
do. (bunkers) (d) ..	13,484	6,942	2,891	921		
Fuel oil ..	288,731	137,245	53,569	155,577		
do. (bunkers) ..	58,729	100,040	112,597	88,293		
do. (bunkers) (d) ..	13,734	5,789	4,094	904		
Lubricating oil (bunkers) (d) ..	1,934	2,295	2,073	2,075		
Irish Republic—						
Aviation spirit (d) (b) ..	3,837	1,964	1,040	787	814	827
do. (d) (c) ..	11,065	10,795	8,745	9,342	8,160	8,291
Motor spirit ..	8,180	41,937	9,696	8,246	6,480	6,584
Aviation turbine fuel (b) ..	—	2,985	51,937	59,818	54,409	55,282
do. (c) ..	—	4	2,711	52,647	16,077	16,335
do. (d) (b) ..	38,691	47,197	—	—	10,371	10,538
do. (d) (c) ..	98,562	119,699	164,026	176,503	180,277	183,171
Gas and diesel oils ..	86,391	314,900	111,099	52,498	108,789	110,535
do. (bunkers) (d)(b) ..	8,909	11,492	12,668	17,948	18,590	18,889
do. do. (b) ..	5,964	8,252	6,826	8,029	14,786	15,023
Fuel oil ..	12,221	322,295	210,407	319,557	488,417	496,256
do. (bunkers) (b) ..	91,970	125,096	106,296	91,654	100,270	101,880
OTHER COUNTRIES						
Albania—						
Crude petroleum ..	249,000	163,000	n.a.	n.a.	n.a.	n.a.
Natural asphalt ..	23,000	27,000	n.a.	n.a.	n.a.	n.a.
Other asphalt ..	244,000	328,000	n.a.	n.a.	n.a.	n.a.

(a) Years ended June 30 of that stated.

(b) Bunkers for foreign going ships or aircraft only.

(c) Exports to Shannon Free Airport.

(d) Foreign produce. See imports.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Austria—</b>						
Motor spirit .. ..	184	294	252	2,962	141	143
Gas oil .. ..	24,562	7,981	770	300	276	281
Fuel oil .. ..	16	23	27	43	41	42
Lubricating oil, etc.	54,449	77,717	98,795	131,108	127,066	129,105
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude petroleum ..	157,143	271,482	148,174	31,973	23,918	24,302
Motor spirit .. ..	878,642	1,010,007	1,675,912	2,341,253	2,286,197	2,322,884
Kerosine .. ..	461,470	500,891	553,466	736,029	697,473	708,665
Gas oil .. ..	1,082,749	3,644,964	1,700,990	3,071,362	2,367,071	2,405,056
do. (bunkers) (a) ..	260,239	230,490	207,751	233,609	1,026,534	1,043,007
Fuel oil, etc. ..	847,546	859,378	1,444,441	2,139,279	1,926,767	1,957,687
do. (bunkers) (a) ..	1,529,519	1,556,793	1,792,148	2,401,090	2,072,931	2,106,196
Lubricating oil ..	154,196	162,374	192,467	191,047	248,764	252,756
do. (bunkers) (a) ..	6,877	6,642	10,442	9,379	9,569	9,723
Other heavy oils ..	1,888	—	1,134	1,475	1,491	1,515
Petroleum jelly ..	234	140	46	70	239	243
Paraffin wax .. ..	161	232	517	223	272	276
Ozokerite and ceresin (c)	40	20	25	19	14	14
Petroleum coke ..	26,836	31,447	26,855	76,856	57,159	58,076
Natural asphalt ..	368	193	132	111	1,311	1,332
Pitch .. ..	220,997	226,184	259,584	284,252	314,091	319,131
<b>Bulgaria—</b>						
Crude petroleum ..	24,310	1,464	4,330	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Denmark—</b>						
Aviation spirit .. ..	1,498	1,628	8,021	—	419	426
Motor spirit .. ..	319,570	287,386	310,598	322,780	508,683	516,846
White spirit .. ..	6	957	1,823	11,819	16,208	16,468
Kerosine .. ..	24,166	12,740	9,260	16,217	16,187	16,447
Gas oil .. ..	322,552	364,063	282,789	344,310	397,098	403,470
Diesel oil .. ..	—	1,693	6,710	17	2,014	2,046
Fuel oil .. ..	32,761	110,925	227,636	636,732	743,131	755,056
Gas oil (bunkers) ..						
Diesel oil (bunkers) ..	446,632	477,208	444,749	423,974	409,222	415,789
Fuel oil (bunkers) ..						
Lubricating oil ..	16,743	15,653	7,844	17,567	18,722	19,023
Grease .. ..	1,308	799	1,219	1,873	1,813	1,842
<b>France—</b>						
Aviation spirit .. ..	7,371	399	359	808	23	23
Motor spirit .. ..	1,608,622	1,595,203	1,103,573	972,857	1,294,388	1,315,159
White spirit .. ..	22,320	27,207	30,703	32,591	50,065	50,869
Kerosine .. ..	49,123	26,801	12,057	2,284	2,796	2,841
Gas oil .. ..	4,203,045	2,820,975	2,575,585	2,856,598	2,997,328	3,045,426
do. (bunkers) ..	364,806	343,179	326,122	324,948	347,114	352,684
do. (bunkers) (b) ..	10,704	17,013	16,625	18,039	10,603	10,773
Fuel oil .. ..	4,935,240	5,020,027	4,193,721	4,214,672	2,561,861	2,602,971
do. (bunkers) ..	2,424,856	2,646,015	3,122,984	3,850,482	4,111,497	4,177,474
do. (bunkers) (b) ..	115,441	130,196	73,601	36,533	48,241	49,015
Lubricating oil ..	264,147	296,347	265,502	373,630	310,734	315,720
do. (bunkers) ..	32,632	34,797	35,074	37,682	40,123	40,767
do. (bunkers) (b) ..	1,027	914	695	869	763	775
Petroleum jelly ..	1,098	1,412	1,794	2,330	1,791	1,820
Paraffin wax .. ..	11,256	16,746	13,007	12,131	16,240	16,501
Ozokerite, ceresin, etc.	35	30	46	47	48	49
Petroleum coke ..	11	1	21	7	66	67
<b>Natural asphalt and</b>						
bitumen .. ..	23,603	17,014	20,908	15,926	14,630	14,865
Mastic asphalt ..	2,475	2,585	4,860	4,557	4,632	4,706
Bitumen .. ..	3,66,088	401,194	372,596	326,233	398,850	405,250

(a) Bunkers for foreign going ships or aircraft only.

(b) Foreign produce, see imports.

(c) Including montan wax.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Crude Petroleum ..	138,621	80,397	31,966	119,039	131,968	134,086
Aviation spirit						
(bunkers) (a) ..	50,331	24,558	11,000	11,972	9,323	9,473
Motor spirit (b) ..	1,156,711	1,090,323	1,714,457	2,157,270	2,299,435	2,336,334
White spirit ..	6,232	8,094	5,999	9,990	7,035	7,148
Kerosine ..	11,936	24,248	28,994	13,900	21,006	21,343
Aviation turbine fuel	23,392	16,359	33,382	30,004	104,470	106,147
do. (bunkers) (a) ..	453,519	563,584	624,232	686,794	741,326	753,222
Gas and diesel oil ..	321,815	377,864	491,394	598,047	308,797	313,752
do. (bunkers) (a) ..	256,558	248,255	287,848	290,814	308,403	313,352
Fuel oil ..	2,737,497	3,531,802	3,910,547	4,675,420	3,850,924	3,912,720
do. (bunkers) (a) ..	1,332,908	1,108,016	1,297,899	1,492,582	1,307,083	1,328,058
Lubricating oil ..	153,096	191,272	256,863	302,295	337,266	342,678
do. (bunkers) (a) ..	10,356	9,949	10,267	10,339	11,590	11,776
Petroleum jelly ..	13,521	14,141	15,474	15,886	15,348	15,594
Paraffin wax ..	47,588	48,952	57,364	70,908	82,318	83,639
Natural asphalt and						
bitumen ..	847	1,329	1,529	1,949	535	544
Bitumen ..	220,830	251,592	321,616	355,347	399,599	406,011
Petroleum coke ..	150,956	148,502	184,294	199,376	223,928	227,521
Germany (East)—						
Motor spirit ..	114,188	492,215	539,510	412,276	456,957	464,290
Diesel oil ..	505,527	420,636	518,441	489,849	481,285	489,008
Greece—						
Diesel and fuel oils ..	46,596	121,279	74,156	119,747	104,281	105,955
Hungary—						
Motor spirit ..	160,000	209,636	240,032	293,341	146,941	149,299
Gas oil ..	157,000	213,573	236,253	245,093	182,620	185,551
Fuel oil ..	311,000	444,861	550,834	471,330	292,581	297,276
Lubricating oil ..	13,492	13,925	11,226	11,508	11,916	12,107
Paraffin wax and ceresin	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	5,178	5,237	5,321
Bitumen ..	198,000	178,141	147,239	76,524	22,592	22,955
Italy—						
Crude petroleum ..	59	36	17	21	6	6
Aviation and motor						
spirits ..	3,482,393	4,209,041	2,286,435	5,731,299	5,804,485	5,897,630
do. (bunkers) (a) ..	103,000	37,187	72,763	37,505	38,288	38,903
White spirit ..	(c)	(c)	(c)	(c)	(c)	(c)
Kerosine ..	1,322,649	1,603,324	2,007,975	2,336,396	2,691,175	2,734,360
Lubricating oil ..	235,469	220,334	257,643	242,948	242,908	246,806
Fuel oil and gas oil ..	15,639,935	15,516,411	19,563,940	21,652,642	18,705,122	19,005,292
do. (bunkers) (a) ..	4,789,793	3,812,235	3,332,246	3,444,867	3,675,267	3,734,244
Paraffin wax ..	1,954	1,728	1,383	1,655	1,907	1,938
Natural asphalt and						
bitumen ..	6,221	7,305	4,199	1,105	1,548	1,573
Pitch ..	122,864	186,686	211,434	204,876	177,388	180,235
Netherlands—						
Aviation spirit						
(bunkers) (a) ..	8,835	21,101	5,858	13,000	4,401	4,472
Motor spirit ..	3,766,313	3,436,552	3,559,065	4,900,000	5,953,400	6,048,900
Kerosine ..	735,739	615,041	712,643	903,000	1,312,783	1,333,849
Gas oil ..	3,615,192	3,804,952	4,104,821	6,490,724	10,867,861	11,042,263
do. (bunkers) (a) ..	502,666	599,617	646,991	747,263	810,751	823,762
Fuel oil ..	3,943,932	4,786,932	4,661,146	7,299,014	11,907,559	12,098,645
do. (bunkers) (a) ..	2,921,736	3,806,257	4,630,595	5,868,818	6,431,201	6,534,403
Lubricating oil ..	291,350	384,215	492,136	466,594	451,771	459,021

(a) Bunkers for foreign ships or aircraft only.

(c) Included with aviation and motor spirits.

(b) Including aviation spirit.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Netherlands (cont.)						
Petroleum jelly ..	7,368	7,350	10,160	10,580	11,930	12,122
Paraffin wax ..	12,529	21,438	25,227	62,909	53,119	53,972
Ozokerite and ceresin (b)	126	124	127	111	108	110
Pitch ..	356,127	251,573	163,001	154,216	133,294	135,433
Natural asphalt..	81	77	36	7	32	33
Petroleum coke..	51,402	7,659	496	395	265	269
Norway—						
Motor spirit ..	151,167	190,017	250,472	292,568	193,631	196,738
Kerosine ..	7	—	31	406	4	4
Fuel oil and solar oil ..	923,849	960,263	860,089	929,813	1,214,427	1,233,915
Lubricating oil ..	22,544	20,364	22,086	12,776	14,838	15,076
Poland—						
Kerosine ..	510,489	662,081	1,449,742	1,667,990	1,292,882	1,313,629
Fuel oils ..						
Lubricating oil ..						
Paraffin wax ..						
Asphalt ..						
Portugal—						
Motor spirit ..	47,883	26,342	24,298	13,788	25,422	25,830
Kerosine ..	132,338	168	315	531	120,458	122,391
Fuel oil ..	48,501	36,263	138,371	31,694	220,671	224,212
do. (bunkers) (a)	44,298	22,323	12,921	16,100	59,833	60,793
Lubricating oil, etc.	5,131	6,740	8,603	11,874	21,770	22,119
Bitumen ..	30	145	787	1,233	38	39
Natural asphalt ..	48	301	74	10	182	185
Roumania—						
Motor spirit(c)..	1,162,700	942,181	973,085	839,134	689,600	700,700
Kerosine ..	272,500	211,998	177,354	198,318	89,200	90,600
Gas oil ..	1,918,900	2,058,172	2,252,356	2,125,393	2,507,900	2,548,200
Fuel oil ..	1,928,700	1,762,025	1,651,104	1,378,282	1,507,500	1,531,700
Lubricating oil ..	269,800	365,436	352,051	373,703	343,600	349,100
Paraffin wax ..	20,000	24,310	21,849	17,913	18,800	19,100
Petroleum coke ..	36,300	44,781	40,648	53,049	66,300	67,400
Bitumen ..	68,600	56,592	37,105	34,939	44,700	45,400
Spain—						
Motor spirit ..	13	351,033	1,012,791	961,686	620,954	630,919
Diesel oil ..	163,077	433,087	1,626,587	1,047,711	1,642,854	1,669,217
Fuel oil ..	233,683	979,296	2,138,738	3,019,539	2,010,880	2,043,149
Sweden—						
Motor spirit, etc.	143,763	287,728	506,570	595,318	540,767	549,445
White spirit ..	—	10	104	31	8	8
Kerosine ..	13,746	72,447	113,503	100,430	71,810	72,962
Fuel oil and gas oil ..	194,068	471,724	980,082	863,145	1,015,900	1,032,202
Lubricating oil and grease ..	47,283	48,567	62,456	59,429	67,592	68,677
Paraffin wax ..	16	93	42	187	184	187
Asphalt ..	—	9	9	17	55	56
Pitch ..	40,666	51,637	44,785	60,954	59,206	60,156
Switzerland—						
Motor spirit ..	15,637	10,589	12,195	27,751	15,332	15,578
Fuel oil ..	116,516	161,089	182,850	213,583	225,170	228,783
Lubricating oil and grease ..	1,157	2,612	6,171	1,948	1,829	1,858
Petroleum coke..	7,081	10,746	10,050	11,486	5,698	5,790
Asphalt and bitumen ..	2,973	2,395	998	1,120	56	57

(a) Bunkers for foreign ships or aircraft only.

(b) Including montan wax.

(c) Including white spirit and special kerosine.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>U.S.S.R.—</b>						
Crude petroleum ..	49,519,700	45,555,652	58,280,500	62,878,500	65,744,961	66,800,000
Motor spirit ..	2,660,000	3,224,654	3,298,600	3,271,900	3,936,826	4,000,000
Kerosine ..	1,232,800	1,162,052	1,300,600	1,449,800	1,574,730	1,600,000
Diesel oil ..	8,157,600	8,479,528	9,929,000	9,792,000	11,219,948	11,400,000
Fuel oil ..	10,469,200	10,989,845	11,497,600	11,405,900	11,219,948	11,400,000
Lubricating oil and grease ..	265,600	262,585	301,100	318,900	306,679	311,600
Paraffin wax ..	29,300	24,113	23,400	27,500	37,400	38,000
Bitumen ..	29,700	32,184	37,300	36,800	35,727	36,300
<b>Yugoslavia—</b>						
Crude petroleum ..	318,900	316,720	287,585	212,815	112,166	113,966
Aviation spirit ..	1,001	871	747	321	170	173
Motor spirit ..	161,626	88,814	125,483	92,201	130,738	132,836
White spirit ..	293	17	165	10	13	13
Aviation turbine fuel ..	12,804	13,515	17,445	23,561	29,623	30,098
Gas oil ..	184,822	265,030	32,496	54,860	88,181	89,596
Fuel oil ..	409,443	273,266	80,738	24,812	172,438	175,205
Lubricating oil ..	42,863	54,298	15,524	92	1,401	1,424
<b>Algeria—</b>						
Crude petroleum ..	34,057,108	35,483,667	39,027,260	41,777,075	<i>n.a.</i>	<i>n.a.</i>
<b>Angola—</b>						
Crude petroleum ..	1	3	16,499	1,478,653	4,201,945	4,269,374
Fuel oil ..	186,500	46,932	253,046	246,837	287,017	291,623
<b>Canary Islands—</b>						
Motor spirit (a) ..	172,197	124,140	173,220	248,477	35,915	36,492
Kerosine (a) ..	167,149	131,269	65,394	2,037	4,275	4,344
Diesel (a) (b) ..	134,972	134,375	94,232	26,209	4,834	4,912
do. (bunkers) (b) ..	57,776	70,945	55,953	55,691	63,397	64,415
Fuel oil (a) (b) ..	396,689	92,563	85,389	88,412	9,868	10,027
do. (bunkers) (b) ..	297,156	480,190	385,409	483,287	479,700	487,398
Paraffin wax (a) ..	9	454	—	—	—	—
Asphalt (a) ..	76,529	57,768	48,600	36,133	41,644	42,313
<b>Ceuta (c)—</b>						
Diesel oil (bunkers) ..	28,597	36,686	28,601	20,817	26,335	26,753
Fuel oil (bunkers) ..	175,780	149,872	98,700	93,111	142,252	144,535
<b>Congo (Brazza)—</b>						
Crude petroleum ..	64,153	37,793	54,459	31,343	16,906	17,178
<b>Egypt—</b>						
Crude petroleum ..	1,509,830	503,217	743,507	1,549,914	3,522,547	3,579,073
Motor spirit ..	588,759	383,974	366,577	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	44,462	43,157	38,678	34,693	22,495	22,856
Gas and diesel oils ..	1,077,438	583,621	177,878	51,094	24,564	24,958
Fuel oil ..						
do. (bunkers) (d) ..						
<b>Gabon—</b>						
Crude petroleum ..	1,364,557	3,136,002	3,781,172	4,322,521	4,596,000	4,670,000
<b>Libya—</b>						
Crude petroleum ..	71,084,574	81,446,489	122,745,990	145,536,360	<i>n.a.</i>	<i>n.a.</i>
<b>Morocco—</b>						
Gas oil ..	325	7,610	26,905	9,859	5,001	5,082
<b>South Africa—</b>						
Motor spirit ..	50,446	70,233	58,823	20,574	14,182	14,410
do. (bunkers) (c) ..						
Kerosine ..	75,956	75,487	29,938	66,784	67,146	68,224
Diesel oil ..	215,602	350,488	238,723	226,021	230,169	233,863
do. (bunkers) ..						
do. (bunkers) (c) ..						
Fuel oil ..	1,212,175	2,319,479	2,217,771	2,717,288	3,011,194	3,059,515
do. (bunkers) ..						
do. (bunkers) (c) ..						
Asphalt and bitumen ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	7,046	4,557	4,630

(a) Excluding exports to Spain and other Spanish Dependencies.

(b) Including foreign produce.

(c) Foreign produce. See imports.

(d) Bunkers of foreign produce.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Tunisia (bunkers)—						
Fuel oil .. .. .	1,821	851	975	3,110	12,309	12,507
Lubricating oil and grease .. .. .	194	176	725	545	634	645
Mexico—						
Crude petroleum ..	1,453,597	1,413,367	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. .. .	9,601	36,472	2,930	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. .. .	1,022,564	1,121,445	2,050,999	2,307,603	2,466,363	2,505,941
do. (bunkers) ..	34,630	4,386	12,041	197,290	163,915	166,545
Gas oil .. .. .	225	2,993	84	76	245	249
Paraffin wax .. ..	949	1,224	1,582	801	1,253	1,273
Natural gas ( <i>million cu. ft.</i> ) (a) .. .. .	16,096	54,365	49,317	45,047	42,917	(c) 1,215
Netherlands Antilles—						
Crude petroleum ..	339,000	348,000	162,000	350,000	650,000	660,000
Aviation spirit .. ..	1,138,000	1,062,000	714,000	595,000	474,000	482,000
Motor spirit .. .. .	3,109,000	3,248,000	3,089,000	3,379,000	3,500,000	3,556,000
White spirit .. .. .	50,000	61,000	34,000	13,000	4,000	4,000
Kerosine .. .. .	444,000	530,000	726,000	547,000	357,000	363,000
Aviation turbine fuel ..	3,641,000	4,168,000	4,053,000	4,192,000	3,516,000	3,572,000
Gas oil .. .. .	3,701,000	2,790,000	1,715,000	2,026,000	2,323,000	2,360,000
Diesel oil .. .. .	1,396,000	1,466,000	1,853,000	1,211,000	1,382,000	1,404,000
Fuel oil .. .. .	19,453,000	20,570,000	21,469,000	23,840,000	27,312,000	27,750,000
Lubricating oil .. ..	654,000	420,000	483,000	358,000	436,000	443,000
Asphalt .. .. .	934,000	999,000	1,080,000	1,022,000	1,011,000	1,027,000
United States—						
Crude petroleum ..	521,432	3,829,808	754,636	282,782	739,710	751,580
Natural gasoline ..	(b)	(b)	(b)	(b)	(b)	(b)
Aviation spirit .. ..	139,134	210,779	67,763	49,353	17,429	17,708
Motor spirit .. .. .	61,923	152,110	63,007	66,677	39,285	39,915
Other finished light products .. .. .	66,325	42,199	60,490	97,392	63,073	64,085
Kerosine .. .. .	31,636	20,034	77,774	19,275	14,960	15,200
Aviation turbine fuel ..	15,028	36,331	32,100	41,534	8,068	8,197
Gas oil and distillate fuel oil .. .. .	522,030	587,017	300,862	271,224	210,659	214,039
Residual fuel oil ..	1,931,417	3,225,123	2,912,090	2,441,083	2,881,208	2,927,442
Lubricating oil .. ..	2,067,445	2,400,000	2,100,000	1,910,000	1,811,000	1,840,061
Transformer oil .. ..	51,819	42,293	49,364	42,367	45,958	46,695
Greases .. .. .	49,911	46,779	38,734	34,921	38,752	39,373
Paraffin wax .. .. .	198,689	175,007	159,906	164,619	184,937	187,904
Petroleum jelly .. ..	26,544	24,328	25,237	22,249	24,263	24,652
Natural asphalt and bitumen .. .. .	36,252	34,125	34,771	25,277	31,420	31,924
Other asphalt, etc. ..	60,615	44,616	50,486	58,367	52,362	53,202
Petroleum coke .. ..	2,588,429	2,925,923	3,483,701	4,112,066	5,536,545	5,625,389
Liquefied petroleum gases .. .. .	689,406	554,090	580,657	615,926	553,846	562,733
Natural gas ( <i>million cu. ft.</i> ) .. .. .	51,754	91,145	100,716	68,272	91,715	(c) 2,597
Argentina—						
Crude petroleum ..	3,039	9,093	185,001	59,684	—	—
Kerosine .. .. .	191	38	4	657	—	—
Gas oil .. .. .	154,547	46	183	3,178	2,785	2,830
Fuel oil .. .. .	985,792	669,911	907,417	93,757	90,326	91,776
Paraffin wax .. .. .	1,354	1,593	3,550	3,297	4,046	4,111
Asphalt .. .. .	5,723	6,495	4,050	2,039	997	1,013
Grahamite ("Rafaelite")	150	314	137	261	243	247

(a) Imports into the United States.

(b) Included with motor spirit.

 (c) Million m<sup>3</sup>.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Bolivia—						
Crude petroleum ..	289,000	1,502,000	1,529,000	1,435,400	665,900	676,600
Brazil—						
Fuel oil .. .. .	<i>n.a.</i>	85,145	46,000	101,000	707,764	719,122
Colombia—						
Crude petroleum ..	4,816,877	4,243,239	2,635,000	3,789,179	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. .. .	904,405	1,166,024	1,117,200	1,856,600	<i>n.a.</i>	<i>n.a.</i>
Ecuador—						
Crude petroleum ..	61,700	37,400	40,100	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Crude petroleum ..	274,495	333,630	481,264	285,055	<i>n.a.</i>	<i>n.a.</i>
Natural gasoline ..	—	378	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Aviation spirit ..	—	7	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	362	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	36	88	9	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil (a) .. ..	8,685	32,569	48,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil and diesel oil ..	41,573	66,322	49,489	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do. (bunkers) ..	38,770	31,648	47,499	27,346	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and grease .. .. .	1,988	748	992	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Crude petroleum ..	116,117,048	124,245,602	127,075,154	127,390,372	126,900,000	127,900,000
Motor spirit .. ..	2,326,263	2,055,951	2,731,607	2,501,486	3,100,000	3,200,000
Kerosine .. .. .	2,090,325	2,736,613	2,609,130	2,419,659	<i>n.a.</i>	<i>n.a.</i>
Aviation turbine fuel ..	177,971	352,639	131,752	82,632	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. .. .	41,877,901	42,284,214	40,526,700	42,049,308	44,200,000	44,800,000
Diesel oil .. .. .						
Fuel oil .. .. .						
Lubricating oil ..	255,380	287,061	381,018	417,562	400,000	400,000
Paraffin wax .. ..	—	26	20	20	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	495,596	552,653	420,179	362,515	397,000	403,000
Burma—						
Paraffin wax .. ..	7,739	4,743	8,168	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Motor spirit, etc. ..	4,242	9,936	1,712	30,318	1,415	1,438
Fuel oil .. .. .	<i>n.a.</i>	<i>n.a.</i>	15,668	129,819	131,536	133,647
Lubricating oil ..	23,938	48,876	44,707	41,168	48,496	49,275
Asphalt .. .. .	17,957	27,047	28,373	29,208	47,049	47,804
Indonesia—						
Crude petroleum ..	8,007,000	9,508,000	12,274,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	5,605,000	5,396,000	5,526,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
White spirit .. ..						
Kerosine .. .. .						
Gas and diesel oils ..						
do. do. (bunker oil)						
Fuel oil .. .. .						
do. (bunker oil) ..						
Lubricating oil ..						
Paraffin wax .. ..						
Iran (b)—						
Crude petroleum ..	74,774,554	119,379,493	117,003,307	134,572,246	146,678,950	149,033,683
Motor spirit .. ..	3,705,045	2,982,303	4,040,605	4,025,667	4,029,757	4,094,423
Kerosine .. .. .	497,150	466,756	783,473	724,089	832,781	846,145
Gas oil .. .. .	1,217,418	799,408	1,246,425	1,218,839	1,605,873	1,631,643
Diesel oil .. .. .	319,437	365,184	303,532	458,654	426,375	433,218
Fuel oil .. .. .	7,776,523	9,308,964	10,858,112	9,690,345	10,961,739	11,137,647
Pitch .. .. .	72,295	91,132	67,416	99,571	66,105	67,166

(a) Including bunkers.

(b) Years ended March 20 following that stated

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Iraq—						
Crude petroleum ..	62,014,787	56,120,790	69,445,521	69,966,164	72,055,675	73,212,168
Japan—						
Motor spirit .. ..	369,613	323,065	125,443	77,294	57,826	58,753
Kerosine .. ..	294,266	302,666	193,161	554,652	151,025	153,448
Gas oil .. ..	194,680	174,259	114,429	79,807	27,478	27,918
Lubricating oils ..	220,880	82,700	151,710	223,220	298,957	303,754
Paraffin wax .. ..	18,219	14,405	17,781	24,478	30,802	31,296
Asphalt and pitch ..	61,086	97,796	127,853	154,803	145,601	147,937
Jordan—						
Asphalt and bitumen ..	20,224	7,985	7,880	4,845	952	967
Kuwait—						
Crude petroleum ..	101,684,739	102,313,966	107,452,430	113,324,522	120,230,000	122,154,000
Light distillate .. ..						
Gas oil .. ..						
Diesel oil .. ..						
do. (bunkers) .. ..	6,551,509	6,738,000	10,584,562	9,710,727	n.a.	n.a.
Fuel oil .. ..						
do. (bunkers) .. ..	3,664,397	n.a.	n.a.	n.a.	n.a.	n.a.
Neutral Zone (a)—						
Crude petroleum ..	18,644,000	19,700,000	18,750,000	20,286,000	n.a.	n.a.
Fuel oil .. ..	646,000	n.a.	n.a.	n.a.	n.a.	n.a.
Saudi Arabia—						
Crude petroleum ..	102,459,954	110,729,266	119,503,878	126,290,281	145,510,000	147,838,000
Southern Yemen (b) (c)						
Aviation and motor spirits .. ..	1,053,213	730,217	705,608	n.a.	n.a.	n.a.
Kerosine .. ..	656,209	557,036	500,991	n.a.	n.a.	n.a.
Gas, diesel and fuel oils	2,245,863	3,058,156	3,010,455	n.a.	n.a.	n.a.
Fuel oils (bunkers) ..	3,615,681	1,374,883	424,370	n.a.	n.a.	n.a.
Syria—						
Natural asphalt .. ..	296	285	98	10	393	400
Turkey—						
Motor spirit .. ..	28,297	5,925	8,541	n.a.	n.a.	n.a.
Fuel oil .. ..	381,768	33,009	146,307	296,422	n.a.	n.a.

(a) Neutral Zone of Kuwait and Saudi Arabia.

(b) Previously Aden.

(c) Domestic and foreign produce.



## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Crude petroleum ..	70,152,881	72,667,395	81,177,261	92,751,047	101,348,942	102,975,597
Aviation spirit ..	132,604	153,849	152,583	122,696	64,641	65,678
Aviation turbine fuel ..	12,199	76,728	85,510	48,828	30,027	30,509
Motor spirit ..	3,462,064	4,427,020	4,394,127	3,933,788	3,850,632	3,912,437
Other spirit (f) ..	2,922,502	4,104,008	4,502,485	4,955,303	3,585,206	3,642,748
Kerosine ..	666,755	624,426	633,495	578,153	544,757	553,500
Aviation jet fuel ..	355,182	541,277	587,670	520,361	584,939	594,327
Fuel oil ..	9,958,374	9,216,054	7,040,996	6,053,417	8,773,141	8,913,950
Diesel oil ..	337,479	224,991	3,463,495	2,932,914	1,876,431	1,906,548
Gas oil ..	2,735,003	3,332,459				
Lubricating oil ..	603,118	639,136	626,790	525,638	516,332	524,619
Greases ..	487	347	487	1,135	1,086	1,103
Other oils ..	2,204	2,629	2,747	2,893	43,986	44,692
Mineral jelly ..	3,116	2,851	2,714	1,583	2,826	2,871
Paraffin wax ..	35,611	14,629	12,287	13,280	27,000	27,433
Other petroleum wax ..	75,299	180,433	171,021	168,408	118,560	120,462
Petroleum coke ..	93,197	83,229	72,151	90,153	140,942	143,204
Asphalt and bitumen (d)	76,888	66,827	64,516	48,850	51,042	51,861
Natural gas (Million cu. ft.) ..	r 22,000	r 27,100	r 36,200	36,900	28,900	(h) 819
<b>Channel Islands—</b>						
Aviation spirit ..	2,021	1,314	905	(b) 978	1,611	1,637
Motor spirit ..	23,116	35,043	36,755	(b) 23,887	40,308	40,955
Other spirit (b) ..	132	145	147	124	101	103
Kerosine (g) ..	22,137	25,850	22,098	(b) 21,148	27,068	27,502
Gas and fuel oil ..	75,074	239,961	253,770	(b) 100,071	284,535	289,102
Lubricating oil ..	2,470	1,685	1,429	(b) 624	1,571	1,596
Greases (b) ..	30	47	35	28	11	11
<b>Gibraltar—</b>						
Aviation spirit (e) (g) ..	10,118	10,070	3,446	4,067	4,131	4,196
Motor spirit ..	3,354	2,913	3,085	3,089	3,858	3,920
Diesel oil ..	20,399	13,991	9,463	7,075	11,705	11,893
Fuel oil ..	(c) 5,516	4,922	1	(c) 7,492	(c) 13,186	(c) 13,397
Lubricating oil ..	1,595	2,561	646	225	283	287
Kerosine ..	33	22	8	—	—	—
<b>Malta—</b>						
Aviation spirit (a) ..	2,131	5,400	5,960	3,357	7,122	7,236
Motor spirit ..	20,264	29,701	27,235	32,917	36,001	36,579
Aviation turbine fuel (a)	44,818	24,038	11,019	15,851	21,419	21,763
Kerosine ..	28,367	22,455	27,471	25,450	23,460	23,837
Fuel oil (a) ..	75,724	130,715	139,850	145,630	109,278	111,032
Gas oil (a) ..	36,441	31,697	36,152	40,316	41,226	41,888
Diesel oil (a) ..	1,540	9,796	16,057	7,046	14,728	14,964
Lubricating oil ..	1,851	1,789	1,712	2,087	2,551	2,592
Paraffin wax ..	215	421	232	272	319	324
Bitumen ..	1,993	3,306	2,344	2,854	1,166	1,185
<b>Gambia—</b>						
Motor spirit ..	4,785	4,869	5,549	6,988	7,327	7,444
Kerosine ..	913	1,190	1,011	1,642	814	827
Aviation turbine fuel ..	—	2	(c) 6	—	—	—
Gas oil ..	4,684	4,572	5,000	6,362	5,923	6,018
Diesel oil ..						
Lubricating oil ..	3,326	517	313	381	520	528
Asphalt and bitumen ..	11	6	1	15	—	—

\*Excluding the United Kingdom, the following rates have been used for converting Imperial gallons to long tons and to tonnes (in brackets): Aviation spirit 315 (310), Motor spirit 305 (300), Aviation turbine fuel 275 (271), Kerosine 275 (271), Gas oil 260 (256), Diesel oil 256 (252), Fuel oil 240 (236), Lubricating oil 250 (246), Crude petroleum 245 (241), Asphalt 220 (216), Road oil 220 (216).

(a) Including imports for bunkering purposes.

(b) Jersey only.

(c) Excess of re-exports.

(d) Natural.

(e) Total imports before deduction of re-exports.

(f) Including white spirit.

(g) Including aviation turbine fuel.

(h) Million m<sup>3</sup>.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Tonnes

Importing Country and Description	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
Ghana—						
Crude petroleum ..	487,215	814,973	895,049	780,327	887,589	901,835
Aviation spirit ..	2,055	1,063	8,636	1,745	304	309
Motor spirit ..	6,295	75	16	43	324	330
White spirit ..	269	383	613	492	557	566
Aviation turbine fuel ..	8,347	25,232	18,023	41,669	31,776	32,286
Diesel oil (b) ..	1	4,110	636	11	2,589	2,630
Lubricating oil (b) ..	10,718	15,176	13,869	14,367	18,308	18,602
Greases ..	796	3,433	856	1,421	539	548
Petroleum jelly ..	1,255	1,145	929	1,407	1,424	1,447
Asphalt and bitumen ..	9,282	4,320	10,484	4,584	10,292	10,457
Kenya—						
Crude petroleum ..	1,819,368	1,892,312	1,931,922	2,034,243	2,170,760	2,205,594
Aviation spirit (b) ..	9,861	6,243	5,591	5,967	4,982	5,062
Motor spirit ..	12,507	4,550	39,996	10,795	42,610	43,294
Kerosine (c) ..	86,022	31,877	80,111	79,973	61,537	62,525
Gas, diesel, fuel oils ..	15,494	93,065	40,964	35,675	67,610	68,695
Lubricating oil (b) ..	8,812	12,307	18,188	7,143	24,032	24,418
Greases ..	463	616	1,484	505	15	15
Petroleum jelly and paraffin wax ..	772	701	1,070	1,164	1,205	1,224
Asphalt ..	1,000	2,598	2,203	1,513	3,374	3,428
Malawi—						
Aviation spirit ..	1,598	1,500	1,441	1,355	1,026	1,042
Motor-spirit ..	20,251	20,089	27,637	27,915	24,584	24,978
Kerosine ..	7,925	8,904	10,258	10,813	10,535	10,704
Aviation turbine fuel ..	2,468	2,669	3,424	4,112	6,439	6,542
White spirit ..	26	104	154	139	166	169
Gas oil ..	28,567	31,370	46,500	47,112	42,605	43,288
Diesel oil ..	2,326					
Fuel oil ..	2,705	3,484	2,751	2,133	2,721	2,765
Lubricating oil ..						
Grease ..	121	93	112	97	124	126
Asphalt and bitumen ..	1,318	2,029	2,256	2,328	3,901	3,963
Mauritius—						
Aviation spirit (b) ..	2,004	851	843	—	—	—
Motor spirit ..	20,266	27,009	20,007	21,519	16,919	17,191
Aviation turbine fuel (b) ..	1,724	8,904	13,678	14,445	14,958	15,198
Kerosine ..	12,226	17,112	12,353	15,326	10,507	10,676
Lubricating oils ..	1,581	2,260	3,257	2,044	2,842	2,888
Gas, diesel, fuel oils (b) ..	52,689	116,127	169,644	143,495	151,706	154,140
Grease ..	108	131	190	128	154	157
Asphalt and pitch ..	1,795	1,792	2,137	1,871	339	344
Asphalt, natural ..	559	1,340	734	—	2,313	2,350
Nigeria—						
Aviation spirit (b) ..	(a) 178	14,751	8,461	6,454	12,506	12,707
Motor spirit ..	(a) 3,459	117,615	248,103	278,319	206,602	209,918
White spirit ..	1,613	1,870	718	2,047	2,714	2,758
Aviation turbine fuel (b) ..	2,754	19,141	67,376	95,741	67,202	68,281
Kerosine ..	13,895	57,810	122,810	129,387	69,830	70,563
Gas oil (b) ..	16,858	129,420	324,078	305,261	153,719	156,186
Diesel oil (b) ..	(a) 2,405	8,803	1,089	132	19,819	20,139
Fuel oil (b) ..	(a) 124,689	137,829	261,488	267,215	116,634	118,506
Lubricating oil ..	30,492	33,088	20,024	28,265	29,097	29,564
Petroleum jelly ..	1,996	2,361	1,703	2,211	2,082	2,115
Asphalt and bitumen ..	(a) 2,354	(a) 7,970	9,947	5,093	61,279	62,262

(a) Excess of re-exports.

(c) Including aviation turbine fuel.

 (b) Including imports for bunkering purposes.  
 See exports.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
St. Helena—						
Motor spirit .. ..	313	404	221	475	312	317
Kerosine .. ..	92	238	135	268	15	15
Fuel oils .. ..	397	364	512	387	46	47
Lubricating oil ..	12	6	13	6	5	5
Seychelles—						
Motor spirit .. ..	920	1,044	1,161	1,413	1,420	1,443
Kerosine .. ..	604	777	937	903	1,402	1,424
Fuel oil .. ..	3,500	4,081	7,263	12,311	9,413	9,564
Sierra Leone—						
Aviation spirit (a) ..	1,499	3,173	4,249	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	24,647	18,818	34,535	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Aviation turbine fuel (a) ..	3,069	2,135	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	10,131	14,723	27,126	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil (a) .. ..	149,449	132,569	114,335	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil (a) .. ..						
Fuel oil (a) .. ..	9,833	13,663	24,674	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	2,141	2,479	3,085	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt and bitumen ..	<i>n.a.</i>	108	80	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania—						
Crude petroleum ..	281,468	658,102	737,397	614,575	720,141	731,697
Aviation spirit ..	3,073	5,133	1,663	4,226	2,835	2,881
Motor spirit .. ..	(c) 32,672	21,353	47,708	71,256	69,370	70,483
Aviation turbine fuel ..	14,783	5,997	12,616	6,524	13,748	13,969
Kerosine .. ..	10,424	2,751	1,648	13,278	13,140	13,351
Gas, diesel, fuel oils ..	(c) 26,239	60,031	125,304	197,926	166,790	169,466
Lubricating oil ..	9,202	10,417	11,833	11,699	19,025	19,330
Greases .. ..	541	460	763	646	1,212	1,231
Petroleum jelly and paraffin wax .. ..	200	151	341	355	340	345
Asphalt .. ..	810	819	424	9,366	19,048	19,354
Uganda—						
Aviation spirit (a) ..	2,984	4,603	1,131	1,403	579	588
Kerosine .. ..	314	(b) 4,976	521	808	909	924
Gas, diesel, fuel oils ..	12	—	—	—	—	—
Lubricating oil ..	4,405	5,005	5,528	6,107	7,218	7,334
Greases .. ..	329	378	377	436	391	397
Petroleum jelly and paraffin wax .. ..	166	244	185	274	266	270
Asphalt .. ..	51	(c) 68	412	374	1,345	1,367
Zambia—						
Aviation spirit .. ..	1,255	3,835	3,237	2,969	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	69,920	88,174	89,405	124,509		
Aviation turbine fuel ..	12,430	13,972	20,994	19,761		
Kerosine .. ..	7,632	14,025	16,954	7,468		
White spirit .. ..	36	58	548	1,268		
Gas oil .. ..	78,293	140,916	179,177	214,994		
Diesel oil .. ..	4,009					
Fuel oil .. ..	4,276	44,099	31,127	15,644		
Lubricating oil and grease .. ..	11,317	12,820	17,579	24,091		
Paraffin wax .. ..	1,390	2,528	1,082	1,225		

(a) Including imports for bunkering purposes. See exports.

(c) Excess of re-exports.

(b) Including aviation turbine fuel.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Canada—						
Crude petroleum ..	20,868,127	22,771,331	23,698,478	25,749,979	27,683,114	28,127,358
Aviation spirit ..	17,357	40,185	14,986	21,825	13,372	13,587
Motor spirit ..	276,032	475,491	478,359	690,583	582,407	591,753
Aviation turbine fuel ..	265,885	417,594	618,407	601,975	464,558	472,013
Kerosine, etc. ..	51,946	234,895	272,257	200,736	40,035	40,678
Lubricating oils ..	256,473	228,788	232,443	235,734	159,536	162,096
Diesel oil ..	852,732	635,768	829,903	704,464	1,042,569	1,059,299
Fuel oil ..	5,979,186	7,048,184	7,026,868	6,674,573	6,731,151	6,839,166
Liquefied petroleum gas	6,680	22,361	32,740	61,512	26,050	26,468
Grease ..	5,984	5,746	5,962	5,927	5,802	5,895
Petroleum jelly ..	2,084	2,266	2,443	4,297	2,897	2,944
Paraffin wax ..	6,701	7,000	10,155	11,215	8,461	8,597
Refined asphalts and road oils ..	25,463	51,301	51,706	57,164	70,689	71,823
Natural asphalt ..	11,616	4,627	3,015	2,261	1,770	1,798
Petroleum coke (c) ..	445,673	505,211	501,256	628,198	695,606	706,769
Natural gas (million cubic feet) ..	43,551	52,872	88,228	37,733	11,878	(d) 336
Antigua—						
Aviation spirit ..	4,874	7,397	13,445	n.a.	n.a.	n.a.
Motor spirit ..	5,747	63,125	4,816	n.a.	n.a.	n.a.
Kerosine ..	35,105	20,579	10,463	n.a.	n.a.	n.a.
Fuel oils ..	117,090	7,821	4,302	n.a.	n.a.	n.a.
Lubricating oil ..	2,798	1,423	855	n.a.	n.a.	n.a.
Bahamas—						
Motor spirit ..	47,600	60,682	65,797	80,585	61,944	62,938
Kerosine ..	8,898	18,440	31,582	72,208	27,000	27,434
Fuel oils ..	107,896	139,025	150,971	156,646	341,748	347,233
Lubricating oil ..	1,912	6,856	2,100	14,253	6,683	6,790
Barbados—						
Crude petroleum ..	72,276	91,892	93,227	74,260	79,643	80,921
Aviation spirit (b) ..	3,259	13	521	2,647	2,169	2,204
Motor spirit ..	14,557	2,790	36	3,530	14,840	15,078
Kerosine (a) (b) ..	13,108	14,389	33,354	46,644	62,122	63,119
Gas oil and diesel oil (b) ..	275,091	241,302	90,430	73,700	42,810	43,497
Fuel oil (b) ..			192,667	116,905	84,674	86,033
Lubricating oil ..	1,143	1,391	1,365	1,760	1,892	1,923
Bermuda (b)—						
Aviation and motor spirits ..	40,552	33,162	16,169	25,871	n.a.	n.a.
Aviation turbine fuel ..	30,635	46,288	99,260	64,781	n.a.	n.a.
Kerosine ..	35,664	28,856	13,720	31,216	n.a.	n.a.
Diesel oil ..	844,453	806,867	42,758	24,469	n.a.	n.a.
Fuel oil ..	12,916	33,373	25,507	48,548	n.a.	n.a.
Lubricating oil ..	945	1,150	1,095	1,025	n.a.	n.a.
Asphalt ..	1,130	2,580	2,920	2,731	n.a.	n.a.
British Honduras—						
Aviation spirit ..	—	1,208	—	—	—	—
Motor spirit ..	9,385	10,746	8,365	12,590	10,643	10,814
Kerosine ..	4,435	3,897	3,811	7,566	7,936	8,063
Diesel and fuel oils ..	12,873	19,255	17,330	22,279	18,872	19,175
Lubricating oil ..	948	809	884	992	1,139	1,157
Asphalt, etc. ..	731	1,174	2,386	65	664	675
Cayman Islands—						
Aviation and motor spirits ..	2,479	3,123	2,209	2,730	4,820	4,897
Kerosine ..	885	514	140	379	1,600	1,625
Diesel oil ..	1,823	1,820	2,294	3,372	3,356	3,410

(a) Including aviation turbine fuel.

(b) Including imports for bunkering purposes. See exports.

(c) Including pitch coke.

 (d) Million m<sup>3</sup>.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES (cont.)						
Dominica—						
Aviation and motor spirits .. .. .	3,407	3,816	4,076	3,372	n.a.	n.a.
Kerosine .. .. .	1,180	1,471	1,475	1,449	n.a.	n.a.
Fuel oil and diesel oil .. .. .	1,356	1,855	1,724	2,099	n.a.	n.a.
Lubricating oil .. .. .	133	160	112	188	n.a.	n.a.
Road oil .. .. .	550	574	535	407	n.a.	n.a.
Grenada—						
Aviation and motor spirits .. .. .	4,873	5,373	6,202	n.a.	n.a.	n.a.
Kerosine .. .. .	2,479	2,704	2,786	n.a.	n.a.	n.a.
Fuel oils .. .. .	2,285	3,759	3,765	n.a.	n.a.	n.a.
Lubricating oil .. .. .	133	177	499	n.a.	n.a.	n.a.
Road oil .. .. .	446	16,493	1,434	n.a.	n.a.	n.a.
Jamaica—						
Crude Petroleum .. .. .	1,326,919	951,574	1,130,507	1,336,909		
Aviation spirit .. .. . (a)	3,657	8,833	(a) 2,620	(a) 5,952		
Motor spirit .. .. .	109	12,408	12,582	737		
Kerosine .. .. . (a)	5,516	34,907	(a) 39,625	3,748		
Gas oil .. .. . (a)	659	53,580	(a) 37,871	30,989		
Diesel oil .. .. . (a)	15,177	76,735	(a) 57,218	7,251		
Fuel oil .. .. . (a)	127,880	318,813	(a) 262,694	199,400	n.a.	n.a.
Lubricating oil .. .. .	8,591	4,990	7,319	5,008		
Grease .. .. .	338	365	395	569		
Petroleum jelly .. .. .	322	333	290	252		
Paraffin wax .. .. .	82	176	316	231		
Natural asphalt .. .. .	792	1,439	6,496	1,292		
Montserrat—						
Motor spirit .. .. .	n.a.	1,001	n.a.	n.a.	n.a.	n.a.
Kerosine .. .. .	n.a.	279	n.a.	n.a.	n.a.	n.a.
Fuel oils .. .. .	n.a.	1,167	n.a.	n.a.	n.a.	n.a.
Lubricating oil .. .. .	n.a.	95	n.a.	n.a.	n.a.	n.a.
St. Kitts—						
Motor spirit .. .. .	2,295	2,320	2,263	2,438	n.a.	n.a.
Kerosine .. .. .	2,284	1,987	3,370	1,831	n.a.	n.a.
Fuel oils .. .. .	2,949	3,156	5,786	3,961	n.a.	n.a.
Lubricating oil .. .. .	173	333	191	219	n.a.	n.a.
St. Lucia—						
Motor spirit .. .. .	4,165	4,408	4,741	4,458	6,842	6,952
Kerosine .. .. .	1,481	1,557	1,533	1,325	2,103	2,138
Fuel oil .. .. .	3,738	4,756	5,114	2,758	10,869	11,044
Lubricating oil .. .. .	189	207	174	316	435	442
Road oil .. .. .	321	2,493	1,339	142	3,553	3,610
St. Vincent—						
Aviation and motor spirits .. .. .	2,987	2,973	2,870	n.a.	n.a.	n.a.
Kerosine .. .. .	1,718	1,721	1,667	n.a.	n.a.	n.a.
Gas, diesel and fuel oils .. .. .	1,025	899	1,611	n.a.	n.a.	n.a.
Lubricating oil .. .. .	86	64	79	n.a.	n.a.	n.a.
Road oil .. .. .	833	623	728	n.a.	n.a.	n.a.
Asphalt .. .. .	20	28	12	n.a.	n.a.	n.a.
Trinidad and Tobago—						
Crude petroleum .. .. .	12,761,889	11,180,069	12,642,930	14,079,975	16,190,089	16,449,940
Aviation and motor spirits .. .. .	31,028	77,543	13,819	90,067	105,996	107,697
Fuel oil .. .. .	29,931	61,021	9,091	8,006	37,614	38,218
Lubricating oil .. .. .	4,114	3,821	4,263	4,192	6,818	6,927
Greases .. .. .	265	265	242	427	288	293
Petroleum jelly .. .. .	157	100	189	173	106	108
Paraffin wax .. .. .	438	615	550	745	652	662

(a) Including imports for bunkering purposes. See exports.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Virgin Islands—						
Motor spirit .. ..	1,522	183	2,993	2,782	3,007	3,055
Kerosine .. ..	638	472	559	559	330	335
Diesel oil .. ..	1,397	926	823	1,928	3,200	3,251
Lubricating oil ..	106	293	542	1,615	137	139
Falkland Islands—						
Motor spirit .. ..	268	317	272	240	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	14	18	8	3	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oils ..	3,238	5,783	169	383	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	20	32	29	91	<i>n.a.</i>	<i>n.a.</i>
Guyana—						
Aviation spirit (a) ..	2,460	4,075	4,329	2,609	3,899	3,962
Motor spirit .. ..	27,614	25,638	35,872	40,853	38,590	39,209
Kerosine .. ..	35,130	25,698	25,658	25,554	26,964	27,397
Gas, diesel and fuel oils	324,948	366,485	365,083	355,691	432,900	439,848
Lubricating oil ..	3,486	3,896	4,316	2,504	4,938	5,017
Grease .. ..	360	491	436	261	519	527
Paraffin wax .. ..	40	27	24	23	9	9
Petroleum jelly .. ..	89	66	117	82	64	65
Road oil .. ..	3,108	355	348	190	46	47
Asphalt and bitumen ..	10,071	11,371	10,708	4,427	7,029	7,142
Asphalt natural ..	153	798	127	1	—	—
Bahrain Islands—						
Crude petroleum ..	6,753,000	8,459,000	7,552,000	8,079,000	<i>n.a.</i>	<i>n.a.</i>
Brunei—						
Aviation and motor spirits .. ..	2,124	2,729	2,905	5,662	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	1,764	1,309	2,331	3,430	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	8	15	2	1,423	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	4	—	179	20	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	1,813	1,623	1,863	2,390	<i>n.a.</i>	<i>n.a.</i>
Grease .. ..	53	35	58	70	<i>n.a.</i>	<i>n.a.</i>
Ceylon—						
Aviation spirit (a) ..	13,334	12,791	13,410	} 80,929	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	159,313	159,266	219,506		<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	291,577	224,329	260,772	184,212	<i>n.a.</i>	<i>n.a.</i>
Gas oil (a) .. ..	138,080	193,525	260,773	211,840	<i>n.a.</i>	<i>n.a.</i>
Diesel oil (a) .. ..	165,925	168,234	171,120	183,691	<i>n.a.</i>	<i>n.a.</i>
Fuel oil (a) .. ..	549,078	457,181	447,858	784,960	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	15,259	12,498	12,056	10,069	<i>n.a.</i>	<i>n.a.</i>
Other oils and greases	653	250	688	650	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	1,735	803	612	687	<i>n.a.</i>	<i>n.a.</i>
Asphalt (incl. natural) ..	21,161	18,602	4,380	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Cyprus—						
Aviation spirit (a) ..	2,253	1,544	2,064	2,364	2,292	2,329
Motor spirit .. ..	68,336	75,637	77,034	92,235	97,309	98,870
Aviation turbine fuel ..	3,624	—	(c)	(c)	(c)	(c)
Kerosine, etc. .. ..	30,360	34,597	63,382	37,194	52,491	53,334
Gas oil .. ..	86,436	99,896	134,118	132,182	130,479	132,573
Other fuel oils .. ..	189,224	192,040	228,249	228,812	242,497	246,389
Lubricating oil ..	4,354	4,898	5,299	5,969	6,728	6,836
Paraffin wax .. ..	126	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt and bitumen ..	12,156	15,215	(b) 13,698	(b) 18,122	(b) 13,859	(b) 14,081

(a) Including imports for bunkering purposes. See exports.

(b) Including natural.

(c) Included with kerosine.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Tonnes

Importing Country and Description	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Hong Kong—</b>						
Aviation spirit ..	11,019	11,502	3,729	4,872	2,624	2,666
Motor spirit ..	74,777	80,600	83,093	100,638	90,114	91,558
White spirit ..	20,869	31,406	28,117	35,074	27,890	28,338
Aviation turbine fuel ..	161,536	201,869	244,270	327,405	344,636	350,166
Kerosine ..	169,500	178,538	173,563	197,677	167,605	170,295
Diesel oil and gas oil ..	377,854	389,758	460,656	532,970	584,644	594,026
Fuel oil ..	1,389,896	1,754,796	1,872,851	2,209,029	2,491,134	2,531,109
Lubricating oil ..	16,761	15,624	24,306	23,467	26,086	26,505
Greases ..	979	848	974	1,231	1,186	1,205
Petroleum jelly ..	290	310	303	260	348	354
Paraffin wax ..	7,132	5,727	4,248	4,679	3,689	3,748
Asphalt and bitumen ..	12,469	12,621	12,650	11,964	11,286	11,467
Asphalt (natural) ..	323	215	185	177	69	70
<b>India (b)—</b>						
Crude petroleum ..	5,067,363	9,788,560	5,969,060	10,875,214	11,473,047	11,657,160
Aviation and motor spirits ..				48,319	25,650	26,062
Other spirit ..	n.a.	n.a.	n.a.			
Kerosine ..	n.a.	n.a.	n.a.	681,379	285,255	289,833
Fuel oil ..	n.a.	n.a.	n.a.	172,240	462,887	470,315
Lubricating oil and grease ..	n.a.	n.a.	n.a.	324,673	182,476	185,404
Petroleum jelly ..	n.a.	n.a.	n.a.	261	1,654	1,681
Paraffin wax ..	n.a.	n.a.	n.a.			
Asphalt and bitumen ..	310	2,366	498	466	907	922
<b>Malaysia (West)—</b>						
Crude petroleum ..	2,645,259	2,856,612	3,082,882	3,169,024	2,989,792	3,037,778
Aviation spirit ..	4,159	349	155	365	3,356	3,410
Motor spirit ..	82,464	92,436	91,940	88,795	96,361	97,908
White spirit ..	5,755	10,955	8,159	6,876	11,778	11,967
Aviation turbine fuel ..	21,052	9,409	(c) 2,447	2,882	22,760	23,125
Kerosine ..	41,458	41,240	49,114	77,792	70,610	71,743
Gas oil ..	286,927	342,530	376,012	369,378	550,570	559,407
Diesel oil ..	37,594	41,509	38,642	64,763	61,243	62,226
Fuel oil ..	35,865	20,526	45,740	32,540	54,232	55,102
Lubricating oil ..	22,534	24,078	22,998	25,502	45,034	45,757
Paraffin wax ..	2,521	2,409	2,945	4,763	3,250	3,302
Petroleum jelly ..	391	452	389	346	429	436
Grease ..	1,244	1,389	1,094	1,064	1,720	1,748
Asphalt and bitumen ..	9,901	8,411	9,910	8,545	7,966	8,094
Natural asphalt ..	264	1,084	405	1,101	1,359	1,381
<b>Sabah—</b>						
Aviation and motor spirits (a) ..	42,988	27,997	47,522	45,824	53,926	54,791
Kerosine ..	(d) 20,092	(d) 23,056	(d) 33,897	(d) 33,934	(d) 39,122	(d) 39,750
Diesel oil ..	66,862	66,454	98,556	89,736	103,630	105,293
Fuel oil (a) ..	11,878	13,654	14,028	13,375	9,537	9,690
Lubricating oil ..	5,082	4,970	5,981	5,896	2,149	2,183
<b>Sarawak—</b>						
Crude petroleum (e) ..	4,519,558	4,924,312	5,818,018	n.a.	n.a.	n.a.
Aviation spirit ..	2,463	526	550	n.a.	n.a.	n.a.
Motor spirit ..	22,775	22,725	28,652	n.a.	n.a.	n.a.
Kerosine ..	9,516	9,847	17,248	n.a.	n.a.	n.a.
Aviation turbine fuel ..	18,945	13,070	6,533	n.a.	n.a.	n.a.
Gas oil ..	25,132	25,167	28,554	n.a.	n.a.	n.a.
Diesel oil ..	19,878	15,343	18,417	n.a.	n.a.	n.a.
Fuel oil ..	4,985	2,614	3,778	n.a.	n.a.	n.a.
Lubricating oil ..	4,061	4,206	4,380	n.a.	n.a.	n.a.
Paraffin wax ..	5	7	8	n.a.	n.a.	n.a.
Mineral jelly ..	19	19	24	n.a.	n.a.	n.a.

(a) Including imports for bunkering purposes. See exports.

(b) Years ended March 31 following that stated.

(c) Excess of re-exports.

(d) Including aviation turbine fuel.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Singapore—</b>						
Crude petroleum ..	3,616,063	5,427,414	8,894,082	9,388,706	10,783,769	10,956,849
Aviation spirit ..	270,271	318,957	351,439	429,249	245,075	249,009
Motor spirit ..	584,147	521,547	513,677	588,941	615,377	625,253
White spirit ..	38,721	35,710	39,524	39,398	29,964	30,446
Aviation turbine fuel ..	980,487	1,364,987	897,038	1,333,532	1,313,987	1,335,076
Kerosine ..	353,304	294,688	271,128	294,120	293,566	298,278
Gas oil ..	819,726	900,700	1,172,689	1,292,219	1,363,558	1,385,439
Diesel oil ..	238,024	206,812	144,259	138,291	186,391	189,383
Fuel oil ..	3,466,158	3,581,234	3,735,555	4,339,527	5,198,547	5,281,968
Lubricating oil ..	120,708	117,406	148,969	183,682	200,980	204,206
Petroleum jelly ..	232	388	386	339	254	258
Grease ..	690	881	702	717	1,057	1,074
Asphalt and bitumen ..	6,062	3,163	6,259	6,625	10,119	10,282
Petroleum coke ..	21,048	76,522	3,004	3	2,026	2,058
<b>Australia (b)—</b>						
Crude petroleum ..	18,049,343	20,228,316	20,397,361	21,108,923	37,277,250	37,875,455
Aviation spirit (a) ..	63,711	60,763	51,005	39,613	49,593	50,389
Motor spirit ..	714,006	370,863	317,848	245,269	424,572	431,385
White spirit ..	6,207	4,180	4,815	4,413	7,519	7,640
Kerosine ..	87,425	50,921	57,458	47,918	73,200	74,375
Aviation turbine fuel (a) ..	177,143	83,164	47,316	58,649	54,310	55,182
Lubricating oil ..	73,524	57,039	50,469	42,780	34,754	35,312
Gas, diesel and fuel oils (a) ..	309,953	212,896	191,570	780,668	1,398,034	1,420,468
Petroleum jelly ..	2,043	901	1,479	1,528	1,679	1,706
Paraffin wax ..	13,040	10,825	11,747	13,148	14,121	14,348
Natural asphalt ..	3,711	644	1,068	647	1,115	1,133
Bitumen and pitch ..	190	230	205	5,052	1,974	2,006
<b>Fiji—</b>						
Aviation spirit (a) ..	3,698	2,287	2,519	1,995	} n.a.	} n.a.
Motor spirit ..	22,462	24,430	25,415	24,686		
Aviation turbine fuel (a) ..	53,285	63,223	66,928	87,374		
Kerosine ..	7,922	8,186	10,284	9,815		
Gas oil (a) ..	16,332	23,208	23,097	29,734		
Diesel oil (a) ..	46,594	40,067	50,652	49,374		
Fuel oil (a) ..	23,081	19,989	25,651	34,832		
Lubricating oil ..	2,187	2,082	2,131	2,387		
Greases ..	150	190	169	178		
Bitumen ..	1,665	1,956	1,124	963		
<b>New Guinea (b)—</b>						
Aviation and motor spirits ..	32,477	37,161	42,413	47,281	n.a.	n.a.
Kerosine ..	5,477	5,273	(c) 12,584	13,717	n.a.	n.a.
Fuel oils ..	43,750	55,051	66,210	75,028	n.a.	n.a.
Lubricating oil ..	2,597	2,332	2,511	3,243	n.a.	n.a.
<b>New Hebrides—</b>						
Aviation spirit ..	307	402	471	123	663	674
Motor spirit ..	2,227	1,921	2,785	2,638	3,332	3,386
Kerosine ..	730	520	1,136	847	1,667	1,694
Lubricating oil ..	333	496	335	375	564	573
Other oils ..	8,099	11,053	14,714	11,503	17,222	17,509
<b>New Zealand (b)—</b>						
Crude petroleum ..	2,732,753	2,907,971	2,450,180	2,703,091	2,711,510	2,755,030
Aviation spirit and motor spirit ..	101,123	242,003	233,331	212,689	282,460	286,993
White spirit ..	20,864	23,189	16,616	32,692	41,057	41,716
Aviation turbine fuel ..	93,272	115,837	108,124	125,777	143,041	145,336
Kerosine ..	31,766	33,243	27,068	36,487	30,632	31,124

(a) Including imports for bunkering purposes. See exports. (b) Years ended June 30 of that stated. (c) Including aviation turbine fuel.



## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>New Zealand (cont.)—</b>						
Gas oil .. .. .	74,589	165,056	124,841	169,175	260,881	265,068
Diesel oil (a) .. .. .						
Fuel oil (a) .. .. .	n.a.	5,239	—	268	—	—
Lubricating oil (a) .. .. .	5,472	49,319	46,453	48,820	44,583	45,298
Transformer oil .. .. .	389	247	296	46	n.a.	n.a.
Petroleum jelly .. .. .	387	388	255	340	n.a.	n.a.
Paraffin wax .. .. .	3,045	1,937	1,576	2,223	4,545	4,618
Asphalt and bitumen .. .. .	911	671	301	201	n.a.	n.a.
do. natural .. .. .	446	352	202	242	273	277
<b>Papua (c)—</b>						
Aviation and motor spirits .. .. .	13,314	21,621	19,432	22,884	n.a.	n.a.
Kerosine .. .. .	(d) 6,872	(d) 8,094	(d) 8,046	(d) 15,152	n.a.	n.a.
Fuel oil .. .. .	15,482	15,880	19,299	25,141	n.a.	n.a.
Lubricating oil .. .. .	1,018	973	75	945	n.a.	n.a.
<b>Solomon Islands—</b>						
Aviation spirit .. .. .	401	349	315	1,063	334	339
Aviation turbine fuel .. .. .	56	16	114			
Motor spirit .. .. .	1,268	1,545	1,937	1,938	2,220	2,256
Kerosine .. .. .	758	837	951	914	1,059	1,076
Fuel oils .. .. .	5,243	7,642	8,702	8,741	9,609	9,763
Lubricating oil .. .. .	287	367	445	490	491	499
<b>Western Samoa—</b>						
Motor spirit .. .. .	4,386	4,583	4,306	4,680	4,949	5,028
Kerosine .. .. .	1,013	1,091	1,154	1,012	1,326	1,347
Fuel oil .. .. .	2,163	2,569	2,919	2,877	3,998	4,062
Lubricating oil .. .. .	155	207	185	687	277	281
<b>Irish Republic—</b>						
Crude petroleum .. .. .	1,669,114	2,681,472	2,445,050	2,463,764	2,900,537	2,947,090
Aviation spirit (a) .. .. .	17,265	11,567	11,527	4,521	6,143	6,242
Motor spirit .. .. .	91,638	50,238	43,810	3,674	128,074	130,130
White spirit .. .. .	3,293	3,720	3,583	64,185	4,482	4,554
Kerosine .. .. .	87,697	70,096	86,401	70,743	97,709	99,277
Aviation turbine fuel (a) .. .. .	139,499	162,949	156,971	219,355	220,146	223,679
Gas and diesel oils (a) .. .. .	85,976	46,614	63,805	115,066	183,427	186,371
Fuel oil .. .. .	623,516	763,130	763,242	1,108,872	1,250,223	1,270,289
Lubricating oil .. .. .	28,916	29,286	32,100	35,237	34,252	34,801
Greases .. .. .	276	317	549	1,110	1,012	1,028
Other oils .. .. .	11,464	40,118	48,002	61,535	70,627	71,760
Paraffin wax (b) .. .. .	2,897	2,386	2,374	3,276	2,877	2,923
Asphalt and bitumen .. .. .	3,227	11,896	66,513	3,628	3,337	3,390
do. natural .. .. .	781	580	3,101	16,980	9,939	10,098

(a) Including imports for bunkering purposes. See exports. (c) Years ended June 30 of that stated

(b) Including other mineral jellies and waxes.

(d) Including aviation turbine fuel.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Crude petroleum ..	1,143,989	1,073,627	1,471,914	1,323,877	2,210,392	2,245,862
Motor spirit ..	592,388	578,517	703,012	784,762	931,468	946,415
White spirit ..	7,263	6,251	4,929	5,988	5,929	6,024
Gas oil ..	110,526	113,381	104,692	101,584	122,024	123,982
Fuel oil ..	1,196,339	1,208,651	1,657,194	1,796,660	1,911,002	1,941,668
Lubricating oil, etc. ..	69,879	54,562	56,531	61,587	75,639	76,853
Petroleum jelly ..	320	308	355	418	490	498
Paraffin wax ..	7,068	7,237	8,073	8,367	9,410	9,561
Ozokerite and ceresin (a) ..	118	175	93	115	109	111
Natural asphalt ..	1,312	1,074	865	499	699	710
Petroleum coke ..	15,560	15,871	10,272	20,584	31,273	31,775
Bitumen, etc. ..	157,975	188,801	193,815	255,231	281,541	286,059
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude petroleum ..	16,325,827	17,309,891	23,024,873	28,003,420	29,874,107	30,353,510
Motor spirit, etc. ..	362,132	418,734	614,226	678,285	987,523	1,003,370
Kerosine ..	17,142	55,702	144,450	61,540	171,340	174,090
Gas oil ..	1,863,925	2,238,959	2,031,746	1,704,501	1,719,930	1,747,530
Fuel oil ..	2,510,756	2,513,771	2,835,255	2,860,801	2,613,714	2,655,656
Lubricating oil ..	263,043	274,770	291,897	292,577	351,550	357,191
Other heavy oils ..	21,789	16,310	15,367	13,610	22,248	22,605
Petroleum jelly ..	1,289	982	935	1,176	2,955	3,003
Paraffin wax ..	7,063	7,974	8,232	9,706	9,983	10,143
Ozokerite and ceresin (a) ..	339	198	150	328	288	293
Petroleum coke ..	96,694	89,062	107,053	149,011	169,476	172,196
Natural asphalt ..	7,354	7,583	4,188	8,414	5,922	6,017
Pitch ..	39,483	41,269	52,925	52,211	44,539	45,254
<b>Bulgaria—</b>						
Crude petroleum ..	2,562,873	2,758,730	3,257,700	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Denmark—</b>						
Crude petroleum ..	4,571,483	6,434,807	6,646,697	9,023,399	9,961,972	10,121,836
Aviation spirit ..	57,405	51,027	45,718	29,227	30,936	31,433
Motor spirit ..	1,017,074	781,043	891,031	766,243	851,213	864,872
White spirit ..	10,618	11,886	12,954	10,491	13,432	13,648
Kerosine ..	146,544	110,227	116,341	130,396	112,619	114,426
Gas oil ..	3,075,648	2,659,224	2,952,453	3,193,684	3,838,511	3,900,108
Diesel oil ..	159,931	46,543	62,075	31,385	27,105	27,540
Fuel oil ..	2,696,835	2,160,704	2,787,653	3,511,905	4,731,752	4,807,683
Lubricating oil ..	103,692	85,481	97,418	82,877	97,153	98,712
Grease ..	1,759	1,333	1,428	1,161	1,686	1,713
Petroleum jelly ..	525	582	507	485	598	608
Ozokerite, etc. ..	1,008	1,247	1,036	1,677	1,435	1,458
Paraffin wax ..	7,958	8,011	8,545	10,467	11,217	11,397
Natural asphalt ..	1,407	1,384	1,703	1,679	1,682	1,709
Other asphalt ..	187,780	207,964	202,191	233,056	257,750	261,886
<b>Faroe Islands—</b>						
Motor spirit ..	3,217	3,644	4,009	4,516	3,960	4,024
Kerosine ..	2,363	3,357	2,554	3,617	1,918	1,949
Fuel oils ..	36,478	45,144	51,680	55,345	65,973	67,032
Lubricating oil, etc. ..	600	559	640	677	707	718
<b>Finland—</b>						
Crude petroleum ..	2,600,668	4,891,801	5,722,367	6,953,831	9,599,178	9,753,216
Motor spirit ..	18,937	83,141	48,093	19,765	26,718	27,147
White spirit ..	5,698	4,587	6,057	7,002	4,197	4,264
Kerosine ..	11,832	11,739	12,179	9,427	11,721	11,909
Aviation turbine fuel ..	13,397	8,792	11,022	5,194	7,403	7,522
Fuel oil ..	1,591,760	2,968,904	2,831,357	2,750,833	2,945,302	2,992,565
Lubricating oil ..	77,011	65,665	65,094	77,657	69,384	70,498
Petroleum jelly ..	394	318	329	428	440	447
Paraffin wax ..	8,103	7,106	7,404	6,210	8,615	8,753
Asphalt, etc. ..	19,812	24,827	28,339	35,561	41,101	41,761

(a) Including montan wax.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>France—</b>						
Crude petroleum ..	61,760,699	71,205,103	75,957,091	84,942,576	98,581,133	100,162,702
Aviation spirit ..	77,561	75,113	43,084	40,542	41,843	42,515
Motor spirit ..	433,651	432,820	608,817	399,532	385,499	391,685
White spirit ..	11,660	14,964	17,861	26,612	32,647	33,171
Kerosine ..	7,011	9,742	9,971	18,085	6,955	7,067
Lubricating oil ..	45,574	28,502	16,243	29,699	25,846	26,261
Fuel oil ..	225,457	1,210,171	1,020,055	909,833	1,063,933	1,081,006
Gas oil ..	2,275,057	2,523,082	2,771,952	2,762,698	3,097,101	3,146,800
Petroleum coke ..	174,183	120,460	116,269	130,694	209,232	212,590
Paraffin wax ..	2,776	2,789	4,504	5,051	3,870	3,932
Ozokerite and ceresin ..	90	72	89	104	49	50
Petroleum jelly ..	512	581	757	629	795	808
Natural asphalt and bitumen ..	3,052	2,281	2,750	1,574	2,584	2,626
Bitumen ..	3,730	7,212	7,446	8,953	11,266	11,447
Natural gas (mill. cu. ft.)	r 13,400	r 15,500	r 13,900	19,300	19,400	(a) 549
<b>Germany (Federal)—</b>						
Crude petroleum ..	66,617,607	70,862,200	82,743,329	88,136,987	97,226,605	98,786,443
Aviation spirit ..	1,401,074	170,981	198,600	163,728	55,509	56,400
Motor spirit ..		3,051,432	3,284,551	3,605,057	4,788,495	4,865,336
White spirit ..	31,111	35,347	41,471	51,053	64,289	65,321
Kerosine ..	13,020	23,236	45,849	25,746	63,427	64,445
Aviation turbine fuel	265,989	350,118	371,959	401,618	541,457	550,146
Gas and diesel oil ..	1,415,487	1,153,249	1,432,161	1,350,691	2,052,133	2,085,064
Fuel oil ..	11,760,103	12,451,914	13,701,558	16,349,499	19,279,496	19,588,883
Lubricating oil, etc. ..	189,373	149,805	171,880	171,206	179,400	182,279
Petroleum jelly ..	1,437	1,359	1,893	1,827	2,145	2,180
Paraffin wax ..	28,565	32,891	31,583	36,952	33,700	34,241
Natural asphalt and bitumen ..	20,913	18,483	19,628	17,830	21,262	21,603
Bitumen ..	528,359	314,397	271,252	286,765	266,790	271,071
Petroleum coke ..	368,761	317,573	318,555	444,225	864,162	878,029
<b>Germany (East)—</b>						
Crude petroleum ..	6,338,000	6,535,000	7,912,000	9,126,000	10,152,000	10,315,000
<b>Greece—</b>						
Crude petroleum ..	3,064,299	3,929,393	3,791,407	4,527,699	4,703,031	4,778,501
Aviation spirit ..	8,956	10,700	13,452	12,919	77,631	78,877
Motor spirit ..	153,978	82,652	79,749	70,984		
White spirit ..	2,915	3,746	3,400	2,157	1,687	1,714
Kerosine ..	3,744	7,513	833	698	67,223	68,302
Fuel oil and diesel oil ..	1,275,318	1,031,261	976,434	1,238,627	1,110,408	1,128,227
Lubricating oil, etc. ..	36,815	41,725	47,117	54,001	75,339	76,548
Petroleum jelly ..	108	104	118	193	138	140
Paraffin wax ..	354	265	272	342	262	266
Asphalt and bitumen ..	991	1,518	832	1,174	758	770
<b>Hungary—</b>						
Crude petroleum ..	2,865,000	2,909,314	3,169,144	3,704,332	4,280,019	4,348,701
Motor spirit ..	55,000	69,879	71,483	98,556	98,551	100,133
Gas oil ..	129,000	127,947	144,735	164,719	292,817	297,516
Fuel oil ..	258,000	340,535	327,830	354,581	382,089	388,220
<b>Iceland—</b>						
Aviation spirit ..	4,720	11,311	3,301	2,338	2,660	2,703
Motor spirit ..	50,922	52,273	52,000	49,191	49,874	50,674
White spirit ..	485	484	910	20	533	542
Kerosine ..	835	741	1,369	2,971	803	816
Gas oil and fuel oil ..	403,481	386,985	332,939	336,621	389,009	395,252
Lubricating oil ..	5,204	4,413	4,557	4,843	4,823	4,900
Greases ..						
Paraffin wax ..	174	107	111	450	458	465
Petroleum jelly ..	10	7	14	8	8	8
Asphalt ..	2,174	1,356	2,705	2,026	4,512	4,585

 (a) Million m<sup>3</sup>.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Crude petroleum ..	74,937,863	85,074,155	86,183,840	99,576,512	110,312,074	112,082,257
Aviation and motor spirits .. .. .	375,110	518,075	168,425	241,236	304,853	309,746
Kerosine .. .. .	6,071	25,469	22,508	106,213	58,132	59,065
Gas oil .. .. .	2,454,650	2,910,669	3,340,273	3,124,326	2,345,018	2,382,649
Fuel oil .. .. .						
Lubricating oil ..	92,664	117,168	159,453	117,474	136,554	138,746
Petroleum jelly ..	1,646	1,718	1,928	1,928	1,742	1,770
Paraffin wax .. ..	34,609	37,530	39,681	43,740	47,086	47,842
Pitch .. .. .	437	2,697	31,459	41,015	44,584	45,300
Petroleum coke ..	266,364	264,906	267,778	335,948	410,840	417,433
Ozokerite and ceresin ..	(a)	(a)	(a)	(a)	(a)	(a)
Natural asphalt and bitumen .. .. .	2,569	3,300	2,127	2,621	2,685	2,729
Netherlands—						
Crude petroleum ..	29,174,723	31,367,387	35,230,537	47,600,046	65,945,352	67,003,580
Motor spirit, etc. ..	302,675	502,368	344,861	588,000	571,319	580,487
Kerosine .. .. .	296,709	423,885	566,341	509,000	433,124	440,075
Gas oil .. .. .	1,776,059	1,769,166	1,808,224	1,689,593	2,763,655	2,808,004
Fuel oil .. .. .	3,854,840	4,040,041	2,363,260	1,595,690	2,183,536	2,218,576
Lubricating oil ..	346,038	311,731	363,035	401,473	434,799	441,777
Petroleum jelly ..	1,936	2,164	2,336	1,983	1,997	2,030
Paraffin wax .. ..	17,419	17,247	16,102	18,209	18,922	19,226
Ozokerite and ceresin (b)	195	158	244	293	395	401
Pitch .. .. .	145,862	189,534	244,332	220,524	171,461	174,213
Petroleum coke ..	97,201	116,697	124,687	138,931	206,821	210,140
Natural asphalt ..	953	1,463	1,936	1,266	1,833	1,863
Norway—						
Crude petroleum ..	2,887,864	3,141,973	4,847,957	5,026,470	6,424,828	6,527,928
Aviation spirit .. ..	29,880	43,657	28,734	21,030	11,396	11,579
Motor spirit .. .. .	473,503	543,019	443,296	552,476	593,737	603,265
White spirit .. .. .	19,908	19,765	22,988	19,183	23,044	23,414
Kerosine .. .. .	202,092	193,112	188,406	173,976	225,222	228,837
Aviation turbine fuel ..	112,688	106,622	73,034	65,462	67,340	68,421
Diesel oil .. .. .	321,923	314,328	137,067	142,816	193,995	197,109
Gas oil .. .. .	1,018,095	1,060,722	954,485	1,015,754	1,201,371	1,220,650
Fuel oil .. .. .	1,542,826	1,402,718	1,050,526	1,080,467	1,255,481	1,275,628
Lubricating oil ..	51,152	52,893	53,986	56,478	62,597	63,602
Petroleum jelly ..	410	344	714	792	822	836
Paraffin wax .. ..	4,017	4,124	3,749	4,386	4,738	4,815
Greases .. .. .	1,770	1,722	1,757	1,759	1,815	1,845
Pitch .. .. .	49,679	76,203	99,834	107,487	143,344	145,645
Petroleum coke ..	169,530	190,371	246,092	264,462	319,063	324,184
Asphalt, etc. .. ..	1,607	1,323	1,259	364	451	459
Poland—						
Crude petroleum ..	3,293,857	3,551,100	5,493,357	6,407,183	6,900,000	7,011,000
Motor spirit .. .. .	2,304,654	2,739,971	2,494,898	2,358,874	2,379,194	2,417,374
Kerosine .. .. .						
Fuel oils .. .. .						
Lubricating oil ..						
Paraffin wax .. ..						
Asphalt .. .. .						
Petroleum coke ..						

(a) Included with paraffin wax.

(b) Including montan wax.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Portugal—</b>						
Crude petroleum ..	1,532,394	1,723,699	1,781,116	2,202,831	3,586,327	3,643,877
Motor spirit ..	100,821	129,848	195,981	271,855	43,868	44,572
Kerosine ..	18,037	17,640	12,474	12,395	14,300	14,530
Aviation turbine fuel ..	7,154	6,927	12,708	16,443	22,436	22,796
Gas oil and diesel oil ..	262,135	331,165	398,994	351,367	255,820	259,925
Fuel oil ..	340,242	353,000	401,444	351,511	196,994	200,155
Lubricating oil ..	46,527	48,425	52,050	57,547	66,970	68,045
Petroleum jelly ..	144	142	243	152	242	246
Paraffin wax ..	3,340	5,097	3,985	3,411	6,126	6,224
Ozokerite and ceresin ..	105	87	162	315	506	514
Bitumen ..	41,720	35,767	31,885	41,864	48,327	49,103
Natural asphalt ..	1,218	1,581	1,943	1,149	996	1,012
<b>Spain—</b>						
Crude petroleum ..	9,975,330	14,391,362	20,269,613	27,412,395	23,426,159	23,802,089
Motor spirit (a) ..	38,391	45,770	61,072	45,907	41,247	41,909
Kerosine (a) ..	46,461	65,376	77,806	10,062	946	961
Aviation turbine fuel ..	102,841	56,802	85,414	33,090	<i>n.a.</i>	<i>n.a.</i>
Diesel oil (a) ..	7,168	6,990	36,422	21,544	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil (a) ..	35,394	14,739	13,626	43,175	32,007	32,521
Fuel oil (a) ..	145,101	54,662	79,302	71,567	80,106	81,391
Petroleum jelly (a) ..	1,308	1,328	1,388	1,598	2,163	2,198
Paraffin wax (a) ..	7,428	9,052	2,889	5,337	10,725	10,897
Asphalt (a) ..	17,951	34,323	18,202	21,100	16,518	16,783
<b>Sweden—</b>						
Crude petroleum ..	r 3,657,447	r 6,048,295	r 8,919,432	10,364,000	11,576,000	11,762,000
Motor spirit, etc. ..	2,480,620	2,525,072	2,489,852	2,548,234	2,528,704	2,569,282
White spirit ..	60,022	66,093	38,635	27,616	30,735	31,228
Kerosine ..	420,475	312,830	346,330	309,956	472,516	480,099
Fuel oil and gas oil ..	15,373,951	12,994,579	13,698,608	14,909,096	17,177,722	17,453,381
Lubricating oil and grease ..	151,604	172,458	183,682	183,143	173,864	176,654
Petroleum jelly ..	723	839	980	962	1,006	1,022
Paraffin wax ..	7,597	6,398	6,285	7,328	6,480	6,584
Ozokerite, ceresin, etc. ..	1,792	1,687	1,833	2,398	2,989	3,037
Asphalt ..	1,095	713	897	597	691	702
Pitch ..	21,778	38,755	50,816	41,609	35,318	35,885
Petroleum coke ..	18,966	18,932	31,443	69,504	72,451	73,614
<b>Switzerland—</b>						
Crude petroleum ..	2,315,440	3,873,852	4,506,002	4,880,647	5,297,828	5,382,843
Motor spirit ..	1,319,360	1,121,731	1,209,635	1,330,395	1,350,463	1,372,134
White spirit ..	9,280	9,392	11,060	13,241	15,375	15,622
Kerosine ..	16,201	10,762	11,520	9,411	19,514	19,827
Gas and diesel oils ..	488,924	303,341	335,077	461,239	549,675	558,496
Fuel oil ..	4,180,938	3,543,772	4,126,988	4,318,806	5,006,635	5,086,977
Lubricating oil and grease ..	74,189	80,787	81,716	84,239	93,811	95,316
Petroleum jelly ..	781	781	818	799	833	846
Paraffin wax and ceresin ..	6,465	7,271	7,843	9,096	10,335	10,501
Asphalt and bitumen ..	264,506	264,238	229,203	218,787	249,814	253,823
Petroleum coke ..	49,449	10,672	53,746	49,930	48,931	49,716
<b>U.S.S.R.—</b>						
Motor spirit ..	922,200	741,304	682,700	633,300	592,700	602,200
Kerosine ..	46,900	12,007	6,900	104,500	78,800	80,100
Diesel oil ..	142,000	238,276	182,900	172,300	175,800	178,600
Fuel oil ..	324,300	158,260	31,200	20,900	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and grease ..	132,000	134,344	94,500	112,000	110,900	112,700
Paraffin wax ..	9,800	7,874	6,300	7,200	5,900	6,000
Bitumen ..	40,100	25,100	21,500	23,500	23,400	23,800

(a) Excluding imports from Canary Islands.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Crude petroleum ..	2,167,417	2,506,361	2,640,801	3,168,556	4,467,524	4,539,215
Aviation spirit ..	27,760	19,204	19,883	16,671	18,713	19,013
Motor spirit ..	1,523	7,209	13,638	6,730	10,306	10,471
Kerosine ..	8,573	12,992	23,893	3,369	22,101	22,456
Aviation turbine fuel ..	—	19	1,076	—	—	—
Fuel oils ..	181,658	567,208	818,300	390,658	794,509	807,259
Lubricating oil ..	42,880	31,368	21,946	46,918	58,210	59,144
Greases ..	508	368	303	461	635	645
Paraffin wax ..	5,905	3,400	2,859	4,485	5,317	5,402
Petroleum jelly ..	288	260	334	304	306	311
Ozokerite and ceresin ..	416	266	194	62	408	415
Petroleum coke ..	25,992	22,988	22,938	13,810	6,609	6,715
Pitch ..	17,640	39,022	56,769	44,697	58,276	59,211
Algeria—						
Motor spirit ..	31,672	r 3,035	30,043	10,609	n.a.	n.a.
Kerosine ..	—	159	9,692	n.a.	n.a.	n.a.
Gas oil ..	4,521	2,450	2,397	n.a.	n.a.	n.a.
Fuel oil and diesel oil ..	3,500	3,777	n.a.	n.a.	n.a.	n.a.
Lubricating oil ..	26,880	30,907	36,516	34,324	n.a.	n.a.
Angola—						
Crude petroleum ..	—	34,853	57,139	75,542	n.a.	n.a.
Motor spirit ..	6,688	7,227	7,165	8,838	8,766	8,907
Kerosine ..	6,109	7,231	7,935	10,897	5,597	5,687
Gas oil and fuel oil ..	32,246	70,096	144,559	162,505	226,723	230,362
Lubricating oil ..	13,199	12,812	15,137	15,077	21,188	21,529
Paraffin wax ..	78	170	326	170	217	221
Petroleum jelly ..	20	32	43	47	26	27
Asphalt and bitumen ..	4,928	1	1,000	233	30	31
Cameroun—						
Motor spirit, etc. ..	53,070	70,930	78,392	86,500	n.a.	n.a.
Kerosine ..	29,760	39,990	47,340	56,000	n.a.	n.a.
Gas and fuel oil ..	41,840	63,130	67,999	77,500	n.a.	n.a.
Lubricating oil ..	3,890	6,160	6,634	7,000	n.a.	n.a.
Canary Islands—						
Crude petroleum ..	6,051,080	6,490,223	7,580,247	7,638,649	6,937,057	7,048,377
Motor spirit ..	23,670	31,995	38,787	7,373	636	647
Diesel (b) ..	6,889	—	19,541	n.a.	n.a.	n.a.
Cape Verde Islands—						
Motor spirit ..	700	n.a.	n.a.	n.a.	n.a.	n.a.
Kerosine ..	2,618	n.a.	n.a.	n.a.	n.a.	n.a.
Central African Republic—						
Aviation spirit ..	2,442	2,110	892	2,217	n.a.	n.a.
Motor spirit ..	10,865	11,888	11,692	1,917	n.a.	n.a.
Kerosine ..	4,282	4,888	5,579	963	n.a.	n.a.
Gas oil ..	10,135	12,250	13,174	2,479	n.a.	n.a.
Diesel oil ..	200	894	383	—	n.a.	n.a.
Ceuta (a)—						
Diesel (b) ..	41,471	22,305	28,102	20,817	n.a.	n.a.
Fuel oil (b) ..	56,996	38,654	32,148	8,000	13,499	13,716
Lubricating oil ..	3,424	3,363	3,335	2,650	2,374	2,413
Congo (Brazza)—						
Aviation spirit ..	2,562	1,809	2,148	1,853	n.a.	n.a.
Motor spirit ..	19,044	17,493	2,662	1,332	n.a.	n.a.
Kerosine ..	19,080	13,736	1,373	1,304	n.a.	n.a.
Gas oil ..	45,743	50,866	24,877	35,218	n.a.	n.a.
Fuel oil ..	18,851	19,324	714	—	n.a.	n.a.
Lubricating oil ..	3,574	5,823	4,148	7,144	n.a.	n.a.

(a) Excluding imports from Spain and Canary Islands.

(b) Imported chiefly for bunkering purposes. See exports.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Dahomey—						
Aviation spirit .. ..	176	332	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	13,094	15,242	12,200	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	10,056	11,194	7,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	13,263	16,299	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oils .. ..	844	943	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	1,215	1,031	1,130	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Crude petroleum .. ..	3,827,174	2,433,075	1,230,452	975,534	1,030,427	1,046,962
Motor spirit .. ..	16,568	11,058	10,099	2,024	3,524	3,581
Kerosine .. ..	139,518	74,210	264,895	275,450	413,343	419,976
Fuel oil .. ..	333	467	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	2,272	31,648	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	148	3,161	11,192	47,409	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	84,654	59,349	67,628	49,387	103,449	105,109
Paraffin wax .. ..						
Ozokerite and ceresin .. ..	2,474	1,237	2,192	2,643	1,896	1,926
Asphalt and bitumen .. ..	3	65	389	5,290	<i>n.a.</i>	<i>n.a.</i>
Ethiopia (a)—						
Aviation spirit .. ..	10,586	8,235	3,156	2,384	2,854	2,900
Motor spirit .. ..	58,690	43,871	15,457	26,521	40,002	40,644
Kerosine .. ..	5,223	6,265	2,944	882	6,862	6,972
Gas and fuel oils .. ..	77,272	148,718	22,292	23,285	53,279	54,134
Lubricating oil and grease .. ..	5,066	6,652	7,390	4,512	3,851	3,913
French Somaliland—						
Motor spirit .. ..	6,803	4,966	11,683	6,076	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	2,472	1,964	2,123	2,181	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	17,790	10,027	14,975	15,206	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	467	548	1,206	8,868	<i>n.a.</i>	<i>n.a.</i>
Gabon—						
Aviation spirit .. ..	2,972	2,545	3,941	5,706	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	14,197	14,299	203	46	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	4,841	1,595	687	615	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	53,136	50,768	3,149	1,058	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	212	210	19	—	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	3,736	3,295	2,192	2,491	<i>n.a.</i>	<i>n.a.</i>
Ivory Coast—						
Crude petroleum .. ..	606,560	709,000	750,700	<i>n.a.</i>	771,550	783,931
Aviation spirit .. ..	896	1,422	1,440	1,460	922	937
Motor spirit .. ..	2,663	58	80,111	3,714	16,447	16,713
Kerosine .. ..	674	26	27,578	1,822	4,372	4,442
Gas oil .. ..	237	21	79,755	13,824	27,749	28,194
Fuel oils .. ..	286	—	28,150	386	415	422
Lubricating oil .. ..	10,509	11,321	12,436	12,270	13,646	13,865
Libya—						
Motor spirit .. ..	108,007	131,461	132,917	149,563	<i>n.a.</i>	<i>n.a.</i>
Kerosine, etc. .. ..	77,089	22,428	19,836	12,049	<i>n.a.</i>	<i>n.a.</i>
Gas oil and diesel oil .. ..	206,746	197,376	236,090	270,913	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	59,290	41,285	49,044	43,684	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil, etc. .. ..	9,991	12,029	17,159	26,242	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Aviation spirit .. ..	5,511	5,583	7,714	6,295	7,286	7,403
Motor spirit .. ..	61,951	10,042	5,677	7,711	2,601	2,643
Kerosine .. ..	17,801	5,027	2,424	737	62	63
Gas oil .. ..	63,190	9,927	7,579	15,234	1,904	1,935

(a) Years ended September 10.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Malagasy Republic (cont.)</b>						
Fuel oils .. ..	2,350	9,348	864	163	1,253	1,274
Lubricating oil .. ..	5,653	7,111	6,987	9,256	7,789	7,915
Road oil, etc. .. ..	8,407	7,574	9,555	10,021	5,982	6,078
Paraffin wax .. ..	2,337	2,397	3,120	2,620	4,308	4,378
Petroleum jelly .. ..	41	34	55	25	31	32
Asphalt and bitumen .. ..	38	113	2,959	982	5,982	6,078
<b>Mali—</b>						
Aviation spirit .. ..	1,219	863	612	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	34,540	40,012	33,229	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	8,953	10,981	10,929	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas and fuel oil .. ..	20,865	23,840	22,234	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	1,955	2,142	2,434	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Morocco—</b>						
Crude petroleum .. ..	1,100,303	1,079,796	1,217,329	1,283,721	1,506,490	1,530,665
Aviation spirit .. ..	6,514	9,149	6,020	7,622	6,853	6,963
Motor spirit .. ..	1,252	1,368	2,494	2,042	2,549	2,590
White spirit .. ..	2,911	5,848	2,412	3,094	3,742	3,803
Kerosine .. ..	23,468	23,028	42,346	49,794	58,203	59,137
Gas oil .. ..	187	19,476	18,344	16,339	41,087	41,747
Fuel oil .. ..	706	19,647	7,997	14,759	84,672	86,031
Lubricating oil, etc. .. ..	19,272	20,895	23,023	26,599	27,743	28,189
Paraffin wax .. ..	7,791	2,938	3,200	2,160	1,464	1,488
Asphalt, bitumen, etc. . . .	18,914	22,818	30,723	5,060	403	410
<b>Mozambique—</b>						
Motor spirit .. ..	27,842	29,100	30,958	27,605	34,303	34 854
Kerosine .. ..	21,186	19,800	21,118	21,902	23,718	24 099
Fuel oil .. ..	49,980	62,100	93,211	89,427	99,886	101,489
Lubricating oil .. ..	9,769	9,700	10,225	12,628	15,641	15,893
Paraffin wax .. ..	2	6	6	2	10	10
Petroleum jelly .. ..	5	4	—	—	4	4
Asphalt and bitumen (a) .. ..	3,999	1,477	1,865	59	156	158
<b>Niger—</b>						
Aviation spirit .. ..	<i>n.a.</i>	1,447	1,481	400	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	13,779	11,301	13,039	11,620	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	—	6,274	5,799	2,540	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	—	14,774	15,797	1,101	<i>n.a.</i>	<i>n.a.</i>
Fuel oils .. ..	—	5,783	8,037	7,179	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	—	1,166	1,877	1,816	<i>n.a.</i>	<i>n.a.</i>
<b>Reunion—</b>						
Motor spirit, etc. .. ..	29,264	32,187	35,362	38,589	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	8,268	8,878	10,484	11,890	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	16,623	22,267	18,738	17,207	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	1,625	1,505	1,485	1,868	<i>n.a.</i>	<i>n.a.</i>
<b>S. Tome and Principe—</b>						
Motor spirit .. ..	1,419	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oils .. ..	1,489	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Senegal—</b>						
Aviation spirit .. ..	1,980	1,954	2,862	<i>n.a.</i>	1,555	1,580
Motor spirit .. ..	72,342	64,354	2,784	<i>n.a.</i>	1,514	1,538
Kerosine .. ..	13,441	11,076	1,095	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	17,197	18,463	1,435	<i>n.a.</i>	355	361
Fuel oils .. ..	79,001	120,053	2,168	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	4,914	39,156	5,104	<i>n.a.</i>	7,728	7,852

(a) Including coal tar and pitch.



## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>South Africa—</b>						
Crude petroleum (c) ..	5,737,106	10,468,210	7,807,228	8,052,242	9,093,543	9,239,467
Motor spirit (b) ..	774,626	365,420	642,236	500,907	376,813	382,857
White spirit ..	35,207	26,657	24,114	25,817	31,681	32,189
Kerosine ..	421,913	428,721	394,793	386,775	305,136	310,030
Gas oil (b) ..	608,160	436,648	411,672	533,855	586,271	595,679
Diesel oil (b) ..						
Fuel oil (b) ..	18,988	618,296	165,162	218,772	371,081	377,033
Lubricating oil ..	187,184	203,000	148,120	130,455	146,569	148,921
Transformer oil ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14,835	12,072	12,266
Other oils ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	923,774	785,190	797,784
Paraffin wax ..	10,223	17,025	14,347	19,144	25,265	25,670
Asphalt and bitumen ..	14,502	8,254	8,685	10,088	17,749	18,034
Petroleum jelly ..	4,038	4,077	4,169	4,047	4,260	4,328
<b>Sudan—</b>						
Aviation spirit (b) ..	3,575	14,059	<i>n.a.</i>	21,636	14,997	15,238
Motor spirit ..	(a) 9,348	15,048	<i>n.a.</i>	104,208	88,906	90,333
Kerosine ..	4,909	23,275	<i>n.a.</i>	82,455	99,691	101,291
Gas oil ..	22,896	62,909	50,817	147,150	146,297	148,645
Diesel oil ..	2,160	13,345	79,232	126,808	175,724	178,544
Fuel oil ..	(a) 9,923	66,744	123,194	258,759	230,753	234,456
Lubricating oil, etc. ..	(a) 6,600	12,701	19,929	54,241	20,432	20,760
Petroleum jelly ..	63	77	84	82	20	21
Paraffin wax ..	125	74	64	119	178	181
Asphalt and bitumen ..	2,155	1,339	<i>n.a.</i>	558	6,913	7,024
<b>Togo—</b>						
Motor spirit ..	9,710	10,587	10,600	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	10,071	13,221	11,290	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil ..	37,966	39,923	40,228	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	1,273	930	1,288	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Tunisia—</b>						
Aviation spirit ..	1,356	674	<i>n.a.</i>	787	1,034	1,051
Motor spirit ..						
White spirit ..	597	784	1,857	705	721	733
Kerosine ..	3,783	481	653	1,900	1,061	1,079
Fuel oil ..	3,193	15,882	9,573	22,901	<i>n.a.</i>	<i>n.a.</i>
Gas oil ..	225	—	<i>n.a.</i>	<i>n.a.</i>	65	66
Lubricating oil ..	13,488	10,541	12,804	10,817	12,700	12,904
Petroleum jelly ..	25	28	36	81	82	83
Paraffin wax ..	218	273	270	280	317	323
<b>Upper Volta—</b>						
Aviation spirit ..	34,647	<i>n.a.</i>	173	40,500	50,300	51,200
Motor spirit ..			13,550			
Kerosine ..			6,163			
Gas oil ..			5,507			
Fuel oils ..			8,373			
Lubricating oil ..	1,404					
<b>Costa Rica—</b>						
Motor spirit ..	69,357	42,928	19,386	17,335	30,073	30,556
Kerosine ..	14,870	14,654	8,197	9,192	27,908	28,356
Diesel oil, etc. ..	177,817	100,594	27,408	24,132	75,359	76,569
Fuel oil ..	17,201	105,372	254,196	304,925	293,963	298,681
Lubricating oil ..	10,210	9,308	11,845	11,832	12,243	12,440
Grease ..	294	360	356	537	937	953
Petroleum jelly ..	133	258	102	192	215	219
Paraffin wax ..	1,947	1,740	1,762	1,983	1,934	1,966
Asphalt ..	7,511	10,366	8,826	7,438	10,143	10,306

(a) Excess of re-exports

(b) Including imports for bunkering purposes. See exports.

(c) Including partly-refined.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES (cont.)</b>						
<b>Cuba—</b>						
Motor spirit .. ..	60,730	37,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	67,910	68,100	64,600	44,600	<i>n.a.</i>	<i>n.a.</i>
Lubricating greases .. ..						
<b>Dominican Republic—</b>						
Motor spirit .. ..	167,300	175,900	172,465	194,400	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	27,800	32,050	51,700	49,000	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil, etc. .. ..	8,848	7,529	9,997	19,500	<i>n.a.</i>	<i>n.a.</i>
<b>French West Indies—</b>						
<b>Guadeloupe—</b>						
Motor spirit, etc. .. ..	35,092	43,544	38,974	41,741	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	12,481	13,915	13,062	11,765	<i>n.a.</i>	<i>n.a.</i>
Gas and fuel oil .. ..	29,046	32,790	33,184	41,480	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	2,012	2,111	2,211	3,558	<i>n.a.</i>	<i>n.a.</i>
<b>Martinique—</b>						
Motor spirit, etc. .. ..	30,394	36,781	38,312	44,566	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	12,288	13,474	12,824	12,797	<i>n.a.</i>	<i>n.a.</i>
Gas and fuel oil .. ..	37,868	39,269	42,289	48,107	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	3,383	3,842	3,630	4,341	<i>n.a.</i>	<i>n.a.</i>
<b>Greenland—</b>						
Motor spirit .. ..	5,152	5,418	8,077	8,619	12,493	12,693
Kerosine .. ..	5,323	5,061	11,595	6,043	702	713
Fuel oil .. ..	79,743	84,700	120,761	90,888	83,438	84,777
Lubricating oil .. ..	1,343	1,114	1,164	915	1,011	1,021
<b>Guatemala—</b>						
Crude petroleum, etc. .. ..	239,227	202,848	<i>n.a.</i>	<i>n.a.</i>	666,385	677,079
Aviation spirit .. ..	11,731	13,594	16,604	16,197	9,855	10,014
Motor spirit .. ..						
Kerosine .. ..	1,455	1,488	4,061	3,072	3,046	3,095
Diesel oil .. ..	123,000	112,000	89,000	60,745	32,202	32,719
Fuel oil .. ..						
Lubricating oil .. ..	6,666	7,484	9,392	8,942	9,991	10,152
Grease .. ..	619	745	992	884	943	959
Asphalt .. ..	3	5	3	6	—	—
Paraffin wax, etc. .. ..	7,117	7,640	7,364	5,869	7,783	7,908
<b>Honduras—</b>						
Crude petroleum .. ..	131,356	90,536	336,049	546,923	690,466	701,546
Motor spirit .. ..	53,745	56,319	57,070	31,259	9,098	9,244
Kerosine .. ..	19,540	18,819	18,707	7,702	93	94
Gas, diesel and fuel oils .. ..	97,834	235,630	208,972	115,858	42,579	43,262
Lubricating oil .. ..	3,352	3,605	6,141	6,379	66	67
Greases .. ..	325	363	690	781	780	794
Pitch, asphalt, etc. .. ..	1,973	2,189	4,211	4,703	15,221	15,465
<b>Mexico—</b>						
Crude petroleum .. ..	18	—	80	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Aviation spirit .. ..	23,633	14,154	37,198	3,923	1,191	1,210
Motor spirit .. ..	116,225	12,282	<i>n.a.</i>	54,146	25,132	25,535
Kerosine .. ..	88	126	506	1,401	1,712	1,739
Gas oil .. ..	44	177	954	169,366	271,763	276,124
Fuel oil .. ..	46,259	71,882	466,659	68,818	45,568	46,299
Lubricating oil .. ..	27,083	56,153	69,498	62,381	30,343	30,830
Grease .. ..	985	2,912	1,751	832	763	775
Paraffin wax .. ..	23,421	27,148	19,753	11,773	13,805	14,027
Petroleum jelly .. ..	1,382	919	201	2	—	—
Asphalt .. ..	442	607	435	429	456	463
Asphalt rock .. ..	585	1,102	32	96	804	817
Natural gas (million cu. ft.) .. ..	8,809	9,669	11,016	<i>n.a.</i>	13,142	(a) 372

 (a) Million m<sup>3</sup>.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands Antilles—						
Crude petroleum ..	39,133,000	40,781,000	38,671,000	41,798,000	46,664,000	47,413,000
Aviation spirit ..	287,000	201,000	<i>n.a.</i>	<i>n.a.</i>	7,000	7,000
Motor spirit ..	251,000	349,000	300,000	235,000	41,000	42,000
Kerosine ..	241,000	156,000	175,000	41,000	<i>n.a.</i>	<i>n.a.</i>
Fuel oil ..	760,000	1,333,000	2,010,000	1,827,000	975,000	991,000
Diesel oil ..	104,000	213,000	68,800	618,000	373,000	379,000
Gas oil ..	191,000	262,000	<i>n.a.</i>	186,000	362,000	368,000
Lubricating oil, etc.	7,000	—	10,800	11,000	92,000	93,000
Asphalt ..	3,000	2,000	<i>n.a.</i>	3,000	1,400	1,400
Nicaragua—						
Crude petroleum ..	206,265	335,210	337,331	306,166	408,134	414,684
Aviation spirit ..	} 14,648	11,952	22,811	24,444	9,607	9,762
Motor spirit ..						
Kerosine ..	4,182	12,049	9,413	8,690	3,499	3,556
Fuel oil ..	14,122	13,360	19,814	27,478	28,854	29,318
Lubricating oil ..	5,389	7,172	7,312	5,590	7,351	7,469
Paraffin wax ..	} 1,358	1,133	1,295	1,560	1,834	1,864
Petroleum jelly ..						
Natural asphalt ..	3	—	27	—	15	15
Panama Republic—						
Motor spirit ..	401	346	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	507	289	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil ..	15,113	12,555	23,968	6,500	<i>n.a.</i>	<i>n.a.</i>
Fuel oil ..	4,248	22,408	24,292	13,800	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	4,611	5,505	5,496	} 6,700	<i>n.a.</i>	<i>n.a.</i>
Grease ..	348	378	443			
Paraffin wax, etc.	604	1,046	1,023	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
St. Pierre and Miquelon—						
Motor spirit ..	733	832	909	1,011	<i>n.a.</i>	<i>n.a.</i>
Gas oil and fuel oil ..	22,145	36,338	47,083	57,599	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	453	457	650	587	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Motor spirit ..	5,818	4,699	1,488	2,277	5,794	5,887
Kerosine ..	1,840	2,477	2,030	1,823	1,532	1,557
Gas oil and diesel oil ..	1,424	1,861	225	210	40	41
Fuel oil ..	484,815	472,373	490,302	343,534	132,667	134,796
Lubricating oil ..	4,958	4,784	4,562	3,751	4,533	4,606
Grease ..	523	503	737	541	576	586
Paraffin wax, etc.	1,795	1,485	1,679	1,575	2,156	2,191
Petroleum jelly ..	198	195	238	351	68	70
Asphalt ..	6,228	7,359	6,405	5,459	5,421	5,509
United States—						
Crude petroleum ..	70,875,201	67,181,510	74,732,448	81,040,653	85,913,876	87,292,539
Aviation spirit ..	} 584,257	248,808	333,259	259,356	324,007	329,206
Motor spirit, etc.						
Naphtha, etc. ..	3,798,084	3,463,460	4,752,434	5,366,694	7,142,746	7,257,366
Kerosine ..	200	277,433	241,258	496,169	336,324	341,721
Aviation turbine fuel ..	4,220,937	4,102,932	5,223,774	5,955,707	6,875,625	6,985,958
Fuel oil ..	} 55,747,845	57,920,400	62,957,039	69,757,009	80,340,576	81,629,804
Gas oil and diesel oil ..						
Lubricating oil, etc.	4,480	5,600	4,653	22,541	32,405	32,925
Paraffin wax, etc.	777	6,799	22,301	20,302	15,012	15,253
Asphalt (petroleum)	} 1,028,051	1,301,014	1,068,279	948,698	1,055,832	1,072,775
Natural asphalt and bitumen ..						
Natural gas ( <i>million cu. ft.</i> ) ..	480,000	548,600	627,900	796,230	1,004,983	(a) 28,458

 (a) Million m<sup>3</sup>.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Argentina—</b>						
Crude petroleum ..	3,646,397	2,251,675	1,753,685	2,510,107	1,266,539	1,286,864
Motor spirit ..	24,972	10,409	79,629	359	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	84	7,820	—	—	—	—
Gas oil ..	434,230	150,464	360,003	672,818	518,812	527,138
Fuel oil ..	15,796	—	—	569,783	160,867	163,449
Diesel oil ..	—	3,856	12,388	104,693	—	—
Lubricating oil ..	93,923	72,369	64,008	148,298	135,214	137,384
Grease ..	139	99	29	85	43	44
Paraffin wax ..	2	1	—	—	3	3
Petroleum jelly ..	65	—	48	69	11	11
<b>Bolivia—</b>						
Aviation spirit ..	14,402	13,248	14,600	11,600	<i>n.a.</i>	<i>n.a.</i>
Motor spirit ..	30	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	82	<i>n.a.</i>	—	—	<i>n.a.</i>	<i>n.a.</i>
Fuel oil ..	207	334	—	—	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and grease ..	2,191	934	1,313	700	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax, etc. ..	2,550	2,953	2,108	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar, pitch, etc. ..	17	26	6	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Brazil—</b>						
Crude petroleum ..	11,143,663	10,392,489	12,326,904	13,159,460	15,547,162	15,796,648
Aviation spirit ..	128,930	143,741	107,506	82,985	73,253	74,428
Motor spirit ..	<i>n.a.</i>	233,765	524,071	202,586	<i>n.a.</i>	<i>n.a.</i>
White spirit ..	3	24	—	—	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	263,836	219,891	198,000	11,741	7,547	7,668
Diesel oil ..	—	19,375	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil ..	17,071	52,783	490,072	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	272,834	275,720	328,812	255,931	389,568	395,819
Transformer oil ..	9,743	10,276	10,242	13,341	22,654	23,018
Petroleum jelly ..	1,561	1,360	1,769	1,341	1,358	1,380
Greases ..	83	37	80	20	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax ..	19,747	21,779	26,810	16,804	5,350	5,436
Ozokerite and ceresin ..	558	93	116	106	214	217
Asphalt and bitumen ..	711	335	542	540	<i>n.a.</i>	<i>n.a.</i>
<b>Chile—</b>						
Aviation spirit ..	9,682	<i>n.a.</i>	<i>n.a.</i>	21,600	<i>n.a.</i>	<i>n.a.</i>
Motor spirit ..	2,309	21,230	9,569		<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	72,605	52,265	94,509	103,300	<i>n.a.</i>	<i>n.a.</i>
Diesel oil ..	117,992	122,815	52,852	75,500	<i>n.a.</i>	<i>n.a.</i>
Residual fuel oil (a) ..	2,403,942	2,422,303	3,240,883	2,220,000	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	<i>n.a.</i>	6,639	7,024	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly ..	<i>n.a.</i>	134	234	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Greases ..	<i>n.a.</i>	1,090	768	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax ..	9,601	10,781	6,500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Natural asphalt ..	501	291	198	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Aviation spirit ..	9,841	2	1	220	<i>n.a.</i>	<i>n.a.</i>
Motor spirit ..	31,510	54,474	9	54,200	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	187	8,003	430	2,800	<i>n.a.</i>	<i>n.a.</i>
Gas oil and diesel oil ..	264	6,964	—	2,000	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	4,426	5,956	2,655	17,000	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly ..	974	415	502	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax ..	30,685	22,217	24,493	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Natural asphalt ..	257	58	186	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Ecuador—</b>						
Lubricating oil and greases ..	6,959	13,239	7,200	10,500	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly ..	132	126	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax ..	3,717	4,301	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Natural asphalt ..	<i>n.a.</i>	4,516	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including crude petroleum.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>French Guiana—</b>						
Motor spirit, etc. ..	4,923	6,980	8,201	10,424	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	948	994	1,813	887	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	6,655	13,901	18,036	16,163	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	186	685	978	516	<i>n.a.</i>	<i>n.a.</i>
<b>Paraguay—</b>						
Motor spirit .. ..	31,000	10,000	6,800	1,500	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	14,000	800	600	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	72,000	24,000	23,000	15,500	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	5,200	2,800	4,000	5,000	<i>n.a.</i>	<i>n.a.</i>
<b>Peru—</b>						
Aviation spirit .. ..	40,531	15,038	39,870	27,317	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	239,505	111,974	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil and fuel oil ..	625,913	29,424	402,069	300,125	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	31,560	6,886	26,774	34,825	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. ..	332	302	263	238	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	11,295	11,353	12,663	11,352	<i>n.a.</i>	<i>n.a.</i>
Asphalt and bitumen .. ..	689	194	169	218	<i>n.a.</i>	<i>n.a.</i>
Greases .. ..	1,898	4,849	1,847	2,421	<i>n.a.</i>	<i>n.a.</i>
Øzokerite .. ..	104	36	9	22	<i>n.a.</i>	<i>n.a.</i>
<b>Surinam—</b>						
Motor spirit .. ..	19,068	20,931	22,000	22,000	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	5,771	6,658	6,000	8,100	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	76,412	95,921	78,500	82,400	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..						
Fuel oil .. ..	229,307	363,068	331,200	347,700	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	3,443	4,536	4,400	4,100	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. ..	1,301	5,102	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Uruguay—</b>						
Crude petroleum .. ..	1,769,276	1,523,146	1,340,000	1,550,000	<i>n.a.</i>	<i>n.a.</i>
Motor spirit, etc. .. ..	2,185	10,003	2,287	3,847	3,932	3,995
Kerosine .. ..	7,300	4,683	18,363	9,575	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. ..	9,929	9,310	16,303	16,289	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..						
Fuel oil .. ..	99,921	16,831	17,450	30,469	19,387	19,698
Lubricating oil and greases .. ..	11,584	10,886	17,055	10,318	13,596	13,814
Paraffin wax .. ..	350	300	296	340	603	613
<b>Venezuela—</b>						
Motor spirit .. ..	4,393	22,877	5,870	4,697	<i>n.a.</i>	<i>n.a.</i>
White spirit .. ..	1,383	716	1,306	686	<i>n.a.</i>	<i>n.a.</i>
Gas and fuel oils .. ..	13	13	16	14	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and grease .. ..	3,890	5,089	5,961	5,474	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	2,906	248	201	262	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. ..	714	716	928	1,010	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. ..	85	241	614	87	<i>n.a.</i>	<i>n.a.</i>
Bitumen, pitch, etc. .. ..	1,081	1,479	1,000	10,733	<i>n.a.</i>	<i>n.a.</i>
<b>Burma—</b>						
Crude petroleum .. ..	262,313	401,545	145,800	96,400	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oils .. ..	7,810	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	25,232	13,950	23,100	13,900	<i>n.a.</i>	<i>n.a.</i>
Grease .. ..	826	713	532			
Paraffin wax .. ..	1	2	45	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. ..	—	111	81	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. ..	3,363	5,428	14,190	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Formosa—</b>						
Crude petroleum .. ..	2,554,553	1,300,029	<i>n.a.</i>	2,958,496	3,454,176	3,509,605
Motor spirit .. ..	6	1	—	—	3	3
Lubricating oil .. ..	27,967	26,393	26,686	34,272	37,280	37,878
Grease .. ..	1,585	2,082	1,673	1,620	2,254	2,290
Paraffin wax .. ..	3,427	3,176	<i>n.a.</i>	4,287	5,210	5,294
Asphalt .. ..	5,295	2,383	2,238	2,809	12,075	12,269

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Iran (a)—</b>						
Lubricating oil ..	3,329	2,638	6,629	7,604	4,360	4,430
Paraffin wax ..	969	900	1,136	719	592	602
Petroleum jelly ..	434	417	747	395	514	522
<b>Iraq—</b>						
Lubricating oil ..	3,309	5,773	2,942	2,530	383	389
<b>Israel (b)—</b>						
Lubricating oils ..	8,608	2,140	6,571	10,383	9,938	10,098
Paraffin wax ..	944	556	826	702	836	850
Petroleum jelly ..	176	131	216	176	180	183
Asphalt ..	256	259	204	147	129	132
<b>Japan—</b>						
Crude petroleum ..	89,189,290	108,301,570	125,545,036	150,327,613	176,975,102	179,806,703
Aviation spirit ..	14,891	1,061	40	36	28,551	29,009
Motor spirit ..	933,682	1,311,725	2,480,834	3,247,410	5,128,567	5,210,865
Kerosine ..	31,164	41,148	142,064	196,028	261,425	265,620
Aviation turbine fuel ..						
Gas oil ..	1,962	124,869	171,489	173,953	264,334	268,575
Fuel oil ..	11,269,248	12,924,290	15,801,211	15,639,495	22,820,627	23,186,898
Lubricating oil ..	340,463	519,387	399,684	396,656	323,765	328,960
Grease ..	2,758	4,803	4,449	2,513	1,641	1,668
Petroleum jelly ..	3,634	3,401	4,259	3,494	3,715	3,775
Paraffin wax ..	6,335	10,178	9,465	8,227	6,192	6,292
Gilsonite ..	2,800	3,074	2,845	2,533	2,505	2,546
Asphalt and bitumen ..	2,735	112	83	8	20	21
Petroleum coke ..	1,080,842	1,278,957	1,727,493	1,914,215	2,532,160	2,572,794
<b>Jordan—</b>						
Crude petroleum ..	462,185	408,587	410,127	497,879	472,140	479,716
Motor spirit ..	5,550	4,295	1,354	3,731	7,525	7,646
Kerosine ..	19,450	16,951	29,578	25,478	32,858	33,385
Fuel oil, etc. ..	n.a.	2,000	n.a.	n.a.	n.a.	n.a.
Lubricating oil ..	5,931	5,367	6,407	7,754	5,889	5,983
<b>Korea (South)—</b>						
Crude petroleum ..	2,019,000	2,624,000	5,000,000	7,500,000	n.a.	n.a.
Aviation spirit ..	3,206	n.a.	3,000	2,000	n.a.	n.a.
Motor spirit ..	15,552	13,000	20,000	n.a.	n.a.	n.a.
Kerosine, etc. ..	—	50,000	23,000	n.a.	n.a.	n.a.
Gas, diesel and fuel oils	304,691	907,000	477,000	112,700	n.a.	n.a.
Lubricating oils ..	22,960	n.a.	n.a.	n.a.	n.a.	n.a.
Greases ..	181	n.a.	n.a.	n.a.	n.a.	n.a.
Petroleum jelly ..	142	n.a.	n.a.	n.a.	n.a.	n.a.
Paraffin wax ..	2,867	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Laos—</b>						
Aviation spirit ..	26,000	n.a.	5,400	7,400	n.a.	n.a.
Motor spirit ..	24,000	n.a.	22,600	26,500	n.a.	n.a.
Kerosine ..	7,000	n.a.	7,300	10,598	n.a.	n.a.
Gas oil ..	11,000	n.a.	14,200	37,000	n.a.	n.a.
Fuel oil ..	6,000	n.a.	2,700	11,000	n.a.	n.a.
Lubricating oil ..	3,000	n.a.	1,200	2,900	n.a.	n.a.
<b>Lebanon—</b>						
Motor spirit ..	296,610	296,291	332,814	341,753	365,791	371,661
Kerosine ..	44,178	47,568	46,102	44,110	50,995	51,814
Fuel oil ..	539,192	548,529	605,413	619,630	685,921	696,929
Lubricating oil ..	12,515	1,308	15,536	17,203	17,621	17,904
Paraffin wax ..	401	494	620	576	660	671
Natural asphalt ..	6	24	14	80	15	15

(a) Years ended March 20 of year following that stated.

(b) Figures include amounts obtained from imported crude petroleum.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Philippine Republic—						
Crude petroleum .. .. .	5,227,000	6,218,000	7,565,000	8,100,000	<i>n.a.</i>	<i>n.a.</i>
Aviation spirit .. .. .	142,200	34,839	14,534	7,000	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. .. .		30,412	4,625	16,000	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	52,300	9,882	1,260	15,100	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. .. .	<i>n.a.</i>	21,810	8,170	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oils .. .. .	<i>n.a.</i>	326	4	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oils .. .. .	83,700	100,693	104,890	85,300	<i>n.a.</i>	<i>n.a.</i>
Grease .. .. .		1,996	2,178		<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. .. .	<i>n.a.</i>	1,713	1,091	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. .. .	<i>n.a.</i>	8,126	11,981	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	<i>n.a.</i>	327	138	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Southern Yemen (b)						
Crude petroleum .. .. .	6,840,415	5,761,180	4,811,743	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. .. .	89,886	28,288	131,685	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	—	—	3,945	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas and fuel oils (a)	1,086,884	328,464	151,673	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and greases .. .. .	8,295	6,464	3,118	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Crude petroleum .. .. .	1,038,142	896,962	1,047,320	1,304,869	1,231,064	1,250,819
Motor spirit .. .. .	8,110	4,097	3,987	15,345	4,450	4,522
Kerosine .. .. .	7,392	7,822	23,709	21,070	18,538	18,836
Fuel oil and diesel oil .. .. .	985,993	408,794	574,358	518,464	179,047	181,921
Lubricating oil .. .. .	22,928	11,371	30,455	30,148	20,487	20,816
Natural asphalt .. .. .	92	1,359	2,818	33	45	46
Thailand—						
Aviation spirit .. .. .	73,297	78,889	14,566	9,265	23,197	23,569
Motor spirit .. .. .	120,960	161,969	107,229	121,950	83,259	84,595
Kerosine .. .. .	1,271,115	770,134	114,176	67,969	34,819	35,373
Gas, diesel and fuel oils .. .. .	644,794	810,485	1,202,042	1,248,656	966,377	981,878
Lubricating oil .. .. .	75,326	95,737	86,818	93,029	98,294	99,871
Grease .. .. .	3,952	5,617	4,146	5,866	6,798	6,907
Paraffin wax .. .. .	4,229	3,681	3,453	4,591	5,070	5,151
Petroleum jelly .. .. .	1,139	1,077	977	884	961	976
Asphalt .. .. .	1,047	4,245	45,829	8,490	862	875
Turkey—						
Crude petroleum .. .. .	2,763,059	2,441,205	2,921,669	2,517,530	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. .. .	1,482	19,319	35,171	40,176	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	22,331	43,643	47,143	50,189	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oils .. .. .	57,633	154,309	166,750	304,835	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. .. .	10,931	14,499	72,379	83,331	<i>n.a.</i>	<i>n.a.</i>
Lubricating oils and grease .. .. .	83,712	88,654	122,681	97,507	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. .. .	2,572	2,667	2,960	3,166	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. .. .	496	240	184	142	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	18	—	11	47	<i>n.a.</i>	<i>n.a.</i>
French Polynesia—						
Motor spirit, etc. .. .. .	22,839	28,421	29,431	27,059	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	9,713	9,562	11,125	5,153	<i>n.a.</i>	<i>n.a.</i>
Other oils .. .. .	49,829	86,360	96,620	69,440	<i>n.a.</i>	<i>n.a.</i>
New Caledonia—						
Motor spirit, etc. .. .. .	21,695	21,740	7,000	27,100	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	3,737	4,008	2,200	5,900	<i>n.a.</i>	<i>n.a.</i>
Gas and fuel oils .. .. .	193,671	193,303	196,000	240,500	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil, etc. .. .. .	2,226	2,542	2,800	3,400	<i>n.a.</i>	<i>n.a.</i>

(a) Including imports for bunkering purposes. See exports.

(b) Previously Aden.

**PHOSPHATES**  
**PRODUCTION OF PHOSPHATE ROCK**  
(Including Apatite)

Producing Country	Long tons					Tonnes						
	Estimated Tribasic Phosphate of Lime Content or equivalent											
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970		
<b>COMMONWEALTH COUNTRIES</b>												
Kenya (a)	318	341	40	354	628	638	70	75	9	78	138	140
Rhodesia (d)	n.a.	n.a.	n.a.	(c) 100,000	(c) 84,000	(c) 85,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Seychelles (a) (b)	3,805	3,480	5,929	7,410	6,431	6,534	2,000	2,000	4,000	4,600	4,100	4,100
Uganda (a)	15,548	10,668	9,322	(c) 12,000	15,318	15,564	14,000	9,600	8,400	11,000	13,800	14,000
Christmas Island (b)(g)	1,039,970	1,073,898	1,193,904	1,161,844	1,046,766	1,063,564	884,000	913,000	1,015,000	988,000	890,000	904,000
India—												
Apatite	15,980	11,447	6,300	9,196	15,519	15,768	6,000	4,000	2,000	3,200	5,400	5,500
Phosphate rock	—	—	—	68,082	147,182	149,544	—	—	—	44,600	96,500	98,000
Australia—												
Phosphate rock	5,715	11,770	5,744	18,258	14,260	14,489	2,500	5,300	2,600	8,000	6,400	6,500
Nauru (b)	2,004,592	1,766,567	2,218,549	2,163,100	2,091,350	2,124,910	1,724,000	1,519,000	1,908,000	1,860,000	1,798,000	1,827,000
Ocean Island (b)	374,030	445,150	519,407	555,100	500,800	508,836	322,000	383,000	447,000	477,000	431,000	437,000
<b>TOTAL</b>	<b>3,372,000</b>	<b>3,236,000</b>	<b>3,891,000</b>	<b>3,878,000</b>	<b>3,922,000</b>	<b>3,985,000</b>						
<b>OTHER COUNTRIES</b>												
Belgium (e)	25,000	26,600	(c) 29,500	n.a.	n.a.	n.a.	5,000	5,000	6,000	n.a.	n.a.	n.a.
France (e)	36,000	63,000	31,600	(f) 30,000	n.a.	n.a.	7,700	15,000	7,500	n.a.	n.a.	n.a.
Poland	86,700	74,300	71,000	57,800	44,000	45,000	r 26,000	r 22,300	r 21,300	r 17,300	r 13,000	r 13,000
U.S.S.R. (f)—												
Apatite	7,873,000	8,661,000	9,546,000	10,334,000	n.a.	n.a.	6,709,000	7,380,000	8,134,000	8,806,000	n.a.	n.a.
Phosphate rock	6,642,000	7,384,000	7,875,000	8,612,000	n.a.	n.a.	3,630,000	4,030,000	4,300,000	4,649,000	n.a.	n.a.
Algeria	63,631	r 191,323	360,000	413,000	484,000	492,000	43,000	r 130,000	241,000	276,000	324,000	329,000
Egypt	650,398	672,414	670,000	650,000	560,000	570,000	400,000	r 430,000	r 420,000	400,000	347,000	353,000
Morocco	9,290,173	r 9,787,962	10,345,770	10,493,992	11,219,422	11,399,494	6,800,000	r 7,243,000	7,637,000	7,761,000	8,210,000	8,342,000

(g) Including phosphate dust

(d) Apatite.

(e) Including phosphatic chalk.

(f) United States Bureau of Mines' estimate.

(a) Phosphatic guano.

(b) Exports.

(c) Estimated.



PRODUCTION OF PHOSPHATE ROCK (cont.)

Producing Country	Long tons					Tonnes				
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970
	Estimated Tribasic Phosphate of Lime Content or equivalent									
<b>OTHER COUNTRIES</b>										
<i>(cont.)</i>										
Senegal—										
Phosphate rock ..	974,000	1,100,000	1,090,000	1,019,000	998,000	808,000	913,000	905,000	846,000	818,000
Aluminium phosphates ..	142,494	158,735	157,865	162,000	130,000	90,000	94,000	101,000	102,000	80,000
South Africa—										
Phosphate rock (h) ..	1,046,539	1,330,606	1,540,692	1,651,994	1,684,880	566,000	67,923	767,881	806,173	822,221
Guano ..	3,303	3,396	3,186	3,780	n.a.	800	800	800	900	n.a.
South West Africa (f) ..	1,804	n.a.	n.a.	n.a.	n.a.	400	n.a.	n.a.	n.a.	n.a.
Togo ..	1,134,000	1,122,000	1,353,000	1,450,000	1,508,000	919,000	909,000	1,096,000	1,175,000	1,206,000
Tunisia ..	3,165,407	2,841,000	3,389,248	2,642,298	2,968,658	2,058,000	1,847,000	2,203,000	1,717,000	1,929,000
Mexico ..	(a) 54,000	48,000	42,000	32,000	50,000	35,100	31,200	27,300	21,000	32,000
Netherlands Antilles (b) ..	145,140	r 101,679	91,667	111,384	90,076	106,000	r 74,000	67,000	81,000	66,000
United States (e) ..	34,866,000	35,509,000	36,831,250	33,683,000	33,571,000	23,628,000	24,316,000	25,054,000	22,793,000	22,693,000
Argentina (f) ..	64	232	289	483	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Brazil—										
Apatite ..	148,100	219,000	r 284,100	n.a.	n.a.	112,000	171,000	r 213,000	n.a.	n.a.
Phosphate rock ..	63,500	52,000	r 44,200	n.a.	n.a.	42,000	34,000	r 29,000	n.a.	n.a.
Chile—										
Guano (c) ..	15,000	16,000	22,000	31,000	n.a.	6,000	6,000	9,000	12,000	n.a.
Peru (f) ..	54,628	63,175	74,000	20,000	n.a.	14,000	16,000	19,000	5,000	n.a.
China (a) (d) ..	1,000,000	1,000,000	1,000,000	1,100,000	1,200,000	750,000	750,000	750,000	800,000	900,000
Indonesia (g) ..	(c) 30,000	(c) 30,000	n.a.	—	n.a.	13,000	13,000	n.a.	—	n.a.
Israel ..	a 394,000	a 590,000	765,000	971,000	880,000	260,000	390,000	500,000	630,000	570,000
Jordan ..	1,019,576	1,065,244	1,138,035	1,299,753	1,081,819	744,000	778,000	830,000	949,000	802,401
Philippine Republic—										
Phosphate rock ..	98	1	513	—	1	40	—	200	—	—
Guano ..	526	1,295	646	—	n.a.	130	320	160	—	n.a.
Vietnam (North) (d) (e) ..	980,000	980,000	980,000	980,000	n.a.	850,000	850,000	850,000	850,000	n.a.
French Polynesia (Matatea) ..	174,188	—	—	—	n.a.	143,000	—	—	—	n.a.
TOTAL ..	70,000,000	74,000,000	79,000,000	76,000,000	78,000,000	—	—	—	—	—
WORLD'S TOTAL ..	73,000,000	77,000,000	83,000,000	80,000,000	82,000,000	—	—	—	—	—

Phosphate rock is also known to have been produced in Venezuela, North Korea and North Vietnam. Guano is known to have been produced in Sarawak and the Somali Republic.

(a) United States Bureau of Mines' estimate. (b) Exports. (c) Estimated. (d) Apatite. (e) Marketable production. (f) Phosphatic guano. (g) Source: International Superphosphate Manufacturers' Association. (h) Including apatite and aluminium phosphate.

**PRODUCTION OF SUPERPHOSPHATES**

Producing Country	Long tons					Tonnes				
	1966	1967	1968	1969	1970	1970	1969	1970	1970	
	Estimated P <sub>2</sub> O <sub>5</sub> Content									
<b>COMMONWEALTH COUNTRIES</b>										
United Kingdom—										
Single	379,829	344,194	334,835	292,686	243,717	247,629	67,000	59,000	49,000	50,000
Concentrated*	95,400	70,862	97,213	104,500	96,800	98,400	42,000	46,000	42,700	43,400
Uganda—										
Single	24,220	16,752	14,769	n.a.	n.a.	n.a.	5,300	n.a.	n.a.	n.a.
Canada*—										
Single	290,000	276,000	246,000	n.a.	n.a.	n.a.	58,000	n.a.	n.a.	n.a.
Concentrated	64,000	89,000	118,000	n.a.	n.a.	n.a.	30,000	n.a.	n.a.	n.a.
India—										
Single	700,000	820,000	723,000	634,100	594,300	603,800	116,200	101,800	95,100	96,600
Pakistan (a)—										
Single	5,780	5,182	18,537	21,648	22,578	22,940	1,000	3,300	3,900	4,000
Australia—										
Single (d)	4,356,000	4,427,000	4,174,000	3,776,000	3,392,000	3,446,000	958,300	830,700	746,000	758,000
New Zealand —										
Single (b)	1,611,000	1,337,000	1,509,000	1,682,000	1,618,000	1,644,000	322,000	302,000	324,000	328,800
<b>TOTAL</b>							1,609,000	1,556,000	1,367,000	1,389,000
Irish Republic*—										
Single	279,000	281,500	256,900	171,700	n.a.	n.a.	51,100	31,400	n.a.	n.a.
Concentrated	48,600	76,800	117,300	82,900	n.a.	n.a.	21,300	33,800	n.a.	n.a.
<b>OTHER COUNTRIES</b>										
Austria*—										
Single	204,600	242,100	215,300	174,300	189,000	192,000	36,800	31,400	34,000	34,600
Belgium*—										
Single	171,900	162,400	185,900	151,100	129,600	131,600	30,900	28,300	25,100	25,500
Concentrated	120,000	120,000	110,000	72,900	74,000	75,200	54,000	34,800	34,800	35,400
Bulgaria—										
Single	487,000	274,000	402,000	n.a.	n.a.	n.a.	95,021	133,000	n.a.	n.a.
Czechoslovakia—										
Single	1,257,000	1,336,000	1,229,000	1,287,000	1,348,000	1,370,000	226,211	231,700	242,700	246,600

\*Source: International Superphosphate Manufacturers' Association.

(b) Superphosphate content of all fertilizers made.

(c) Estimated.

(d) Including double and triple superphosphate and ammonium phosphate expressed as single superphosphate.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons Tonnes

Long tons Tonnes

Producing Country	1966	1967	1968	1969	1970	1970	Estimated P <sub>2</sub> O <sub>5</sub> Content				1970	
							1966	1967	1968	1969		1970
<b>OTHER COUNTRIES (cont.)</b>												
Denmark*	450,300	352,300	312,300	371,300	327,900	333,100	81,100	63,400	56,200	66,800	59,000	60,000
Single (a)	24,600	24,600	23,800	22,800	19,800	20,200	7,900	7,900	7,600	7,300	6,300	6,400
Enriched	447,800	303,100	249,800	n.a.	n.a.	n.a.	85,100	59,100	49,900	n.a.	n.a.	n.a.
Finland*	84,123	85,600	61,200	n.a.	n.a.	n.a.	16,000	19,700	14,100	n.a.	n.a.	n.a.
Single	1,456,700	1,402,500	1,495,200	1,373,600	1,200,600	1,219,900	279,700	277,100	290,000	276,500	240,800	244,700
Korka-phosphate	224,600	332,700	282,700	356,000	364,900	370,700	101,100	149,800	127,100	160,200	164,200	166,800
France*	369,600	320,900	214,500	n.a.	109,300	111,100	66,500	57,800	40,800	n.a.	21,200	21,500
Single	856,000	n.a.	n.a.	n.a.	n.a.	n.a.	154,000	165,000	183,000	190,000	203,000	206,000
Greece*	147,300	173,200	206,500	88,000	145,200	147,600	28,000	31,500	43,400	18,800	30,000	30,500
Single	700,000	811,000	833,000	903,000	886,000	900,000	128,000	150,000	154,000	167,000	164,000	166,000
Hungary	1,645,066	1,532,897	1,584,419	1,391,722	1,372,371	1,394,394	310,000	290,000	300,000	260,000	261,000	265,000
Single	259,900	303,100	282,400	301,800	236,400	240,200	48,600	55,400	53,700	55,400	44,700	45,400
Concentrated	163,500	183,100	203,400	158,600	159,900	162,500	73,600	80,800	91,500	72,000	73,300	74,500
Norway	15,000*	18,700*	6,800*	19,000*	21,000*	21,400*	2,700	3,400	1,200	3,400	3,800*	3,800*
Single (c)	22,400	16,700	10,400	5,600	—	—	6,900	5,400	3,800	1,900	—	—
Enriched*(d)	1,462,000	1,544,000	1,903,000	2,124,700	2,270,200	2,306,600	241,000	255,000	314,000	387,000	n.a.	n.a.
Poland (b)	401,458	483,000	481,000	346,500	445,434	452,582	72,000	81,000	80,000	79,000	80,000	81,000
Single	* Source: International Superphosphate Manufacturers' Association.											
Portugal	(a) The majority of this material was used to make potash superphosphate, production of which was as follows (long tons): 1966—566,197; 1967—489,865; 1968—426,565; 1969—n.a. 1970—n.a.											
Single	(b) The following amounts of "Supertomasyna" were produced (long tons): 1966—301,000; 1967—289,000; 1968—308,000; 1969—n.a. 1970—n.a.											
Concentrated (e)	(c) The majority of this material was used to make potash superphosphate, production of which was as follows (long tons): 1966—33,674; 1967—26,575; 1968—30,835; 1969—n.a. 1970—n.a.											
	(d) Including concentrated superphosphate.											
	(e) Calculated as single superphosphate.											

PRODUCTION OF SUPERPHOSPHATES (cont.)

Producing Country	Long tons Tonnes					Estimated P <sub>2</sub> O <sub>5</sub> Content					Long tons Tonnes	
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1966	1970
	OTHER COUNTRIES (cont.)											
Roumania—	960,000	1,010,000	c1,119,000	c1,360,000	c1,525,000	153,000	162,000	179,000	218,000	240,000	244,000	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Spain (a)—	1,700,000	1,520,600	1,500,000	1,427,000	c1,634,000	300,000	306,000	311,300	309,200	283,000	287,600	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Sweden*	324,900	303,100	293,100	228,200	170,900	63,400	59,100	57,100	44,500	38,300	38,900	
Single (b)	..	..	..	..	..	..	..	..	..	..	..	..
Enriched	34,900	23,600	60,600	86,100	103,400	10,100	6,800	17,600	21,500	25,900	26,300	
Switzerland*	25,000	25,000	24,000	n.a.	12,300	4,400	4,400	4,300	n.a.	2,200	2,200	
Single	..	..	..	..	..	..	..	..	..	..	..	..
U.S.S.R.	13,696,000	n.a.	n.a.	n.a.	n.a.	2,600,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Single	..	..	..	..	..	..	..	..	..	..	..	..
Concentrated	..	..	..	..	..	..	..	..	..	..	..	..
Yugoslavia—	996,000	1,058,000	909,000	823,900	n.a.	160,000	169,000	145,000	136,000	n.a.	n.a.	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Concentrated	..	..	..	..	..	..	..	..	..	..	..	..
Algeria—	n.a.	72,800	79,000	98,400	110,000	n.a.	11,600	13,000	15,800	17,800	18,100	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Egypt—	272,547	261,622	301,215	338,200	411,400	44,000	n.a.	n.a.	n.a.	n.a.	n.a.	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Morocco*	88,300	116,100	63,900	54,600	55,900	15,500	19,800	11,200	9,800	10,600	10,800	
Single	..	..	..	..	..	..	..	..	..	..	..	..
South Africa*	1,004,800	965,200	925,700	n.a.	n.a.	191,000	183,300	175,900	n.a.	n.a.	n.a.	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Tunisia—	31,900	31,000	33,900	32,700	33,200	5,100	4,900	5,400	5,200	5,300	5,400	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Concentrated	212,100*	318,600*	371,100	n.a.	376,000	98,000	147,000	171,000	n.a.	168,000	171,000	
Cuba*	(c) 60,000	c) 59,100	n.a.	15,100	—	10,000	10,600	n.a.	3,100	—	—	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Mexico—	159,777	179,176	257,954	380,770	362,600	28,800	32,300	n.a.	n.a.	n.a.	n.a.	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Concentrated	47,053	43,868	..	..	..	18,800	17,500	n.a.	n.a.	n.a.	n.a.	
Salvador—	12,353	15,473	6,653	20,064	n.a.	2,500	3,000	1,300	4,000	n.a.	n.a.	
Single	..	..	..	..	..	..	..	..	..	..	..	..
United States*—	5,079,400	5,284,700	4,078,500	n.a.	n.a.	1,014,800	1,054,800	815,700	n.a.	n.a.	n.a.	
Single	..	..	..	..	..	..	..	..	..	..	..	..
Concentrated	3,334,500	2,938,800	2,695,600	n.a.	n.a.	1,500,500	1,322,500	1,240,000	n.a.	n.a.	n.a.	

\*Source: International Superphosphate Manufacturers' Association.

(a) Including Canary Islands.

(b) The majority of this material was used to make potash superphosphate, production of which was as follows (long tons): 1966—427,676; 1967—395,885; 1968—406,119; 1969—375,145; 1970—n.a.

(c) Estimated.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Producing Country	Long tons Tonnes					Estimated P <sub>2</sub> O <sub>5</sub> Content					Long tons Tonnes	
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1970	1970
OTHER COUNTRIES (cont.)												
Brazil—	311,485	445,971	498,773	528,390	628,574	638,661	89,200	90,000	100,000	125,000	127,000	
Single .. .. .				5,500*	n.a.	n.a.	5,200	5,800	800	n.a.	n.a.	
Colombia—	26,100*	26,100*	29,000*	9,400	10,600	10,800	4,000	4,000	2,000	2,100	2,100	
Single .. .. .	18,700	20,000	20,000	n.a.	n.a.	n.a.	8,000	10,000	n.a.	6,800	6,900	
Peru—	39,000	46,800	50,000	8,400	10,800	11,000	1,000	1,300	1,400	2,200	2,200	
Single .. .. .	5,000	6,000	7,000	193,400	n.a.	n.a.	38,000	36,000	35,000	n.a.	n.a.	
Venezuela*—	208,652	200,286	200,700	59,600	65,900	67,000	11,400	10,600	12,100	12,800	13,000	
Formosa—	55,800	59,100	55,700	3,300	2,400	2,400	1,500	1,000	1,100	800	800	
Single .. .. .	4,900	3,900	3,200	960,200	827,900	841,200	227,000	201,000	171,000	147,900	150,300	
Concentrated (b)	1,268,400	1,170,200	1,112,500	105,700	74,500	75,700	28,900	35,100	39,800	28,000	28,500	
Japan*—	77,200	78,800	94,000	n.a.	n.a.	n.a.	300	—	n.a.	n.a.	n.a.	
Single .. .. .	2,169	757	—	n.a.	n.a.	n.a.	130	—	n.a.	n.a.	n.a.	
Concentrated (b)	76,600	(a)78,700	78,700	n.a.	n.a.	n.a.	13,800	14,200	n.a.	n.a.	n.a.	
Jordan—	6,000	8,000	12,000	n.a.	2,100	2,100	1,400	2,400	n.a.	400	400	
Single .. .. .	218,600	202,000	184,200	n.a.	n.a.	n.a.	35,000	29,500	n.a.	n.a.	n.a.	
Lebanon*—							8,900,000	8,700,000	8,700,000	8,700,000	8,800,000	
Single .. .. .							10,500,000	10,200,000	10,100,000	10,100,000	10,300,000	
Philippine Republic*—												
Single .. .. .												
Turkey—												
Single .. .. .												
TOTAL												
WORLD'S TOTAL												

Single and concentrated superphosphates are also produced in Rhodesia but figures are not available for publication. Concentrated superphosphate is also produced in Australia, Germany (Federal) and Spain.

\*Source: International Superphosphate Manufacturers' Association.

(a) Estimated.

(b) May include enriched superphosphate.

PRODUCTION OF BASIC SLAG

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (b) ..	655,700	655,670	597,980	590,350	640,449	650,728
<b>OTHER COUNTRIES</b>						
France .. .. .	2,519,475	2,477,369	2,634,429	2,774,909	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) ..	2,742,000	2,654,000	2,677,000	2,703,000	2,335,000	2,373,000
Germany (East) (a) ..	112,000	123,000	124,000	123,000	<i>n.a.</i>	<i>n.a.</i>
Luxemburg .. .. .	764,561	774,623	804,170	809,244	792,269	804,983
Sweden .. .. .	51,120	65,734	368,992	323,548	<i>n.a.</i>	<i>n.a.</i>
Egypt .. .. .	27,527	<i>n.a.</i>	55,354	38,622	21,200	21,540

Basic slag has also been produced in the U.S.S.R., South Africa, Japan and other countries.

(a) Estimated.

(b) Years ended May 31 of year following that stated.

## EXPORTS OF PHOSPHATES, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Phosphatic fertilizers ..	44,193	55,670	62,176	48,477	45,220	45,946
Seychelles— Phosphatic guano ..	3,805	3,480	5,929	7,410	6,431	6,534
Canada— Nitrogen-phosphate fertilizers ..	(£7,558,541)	(£8,978,193)	(£9,930,240)	(£11,338,000)	(15,278,000)	(15,278,000)
Christmas Island— Phosphate rock ..	950,517	984,125	1,123,269	1,043,750	957,042	972,400
Phosphate dust ..	89,453	89,773	70,635	118,094	89,724	91,164
Malaysia (West)— Natural phosphates ..	39	32	27	137	9	9
New Zealand (a)— Superphosphates ..	428	405	488	336	n.a.	n.a.
Nauru— Phosphate rock ..	2,004,592	1,766,567	2,218,549	2,163,100	2,091,350	2,124,910
Ocean Island— Phosphate rock ..	374,030	445,150	519,407	555,100	500,800	508,800
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.— Phosphate rock ..	30,410	20,762	10,715	11,810	7,759	7,883
Superphosphates (b) ..	48,774	46,067	45,510	31,793	24,306	24,696
Basic slag (b) ..	268,653	276,623	277,316	278,875	267,343	271,633
France— Phosphate rock ..	1,638	2,910	788	433	2,568	2,628
Superphosphates ..	28,264	43,030	30,471	29,104	14,485	14,718
Basic slag (b) ..	337,142	344,742	306,780	275,156	323,951	329,150
Di-calcium phosphates ..	9,440	14,551	17,641	15,602	9,486	9,638
Germany (Federal)— Phosphate rock ..	41,840	49,278	23,349	2,419	4,584	4,658
Superphosphates ..	31,800	8,203	34,402	14,944	5,468	5,556
Basic slag ..	220,510	199,990	211,914	226,027	270,902	275,249
Other phosphatic fertilizers ..	3,137	2,409	6,856	3,264	5,562	5,651
Greece— Phosphatic fertilizers ..	10,184	25,122	83,025	—	42,912	43,601
Hungary— Superphosphates ..	n.a.	n.a.	n.a.	7,414	12,416	12,615
Italy— Superphosphates ..	2,230	1,085	18,922	6,619	7,640	7,763
Netherlands— Phosphate rock ..	548	497	223	7,077	6,278	6,379
Superphosphates (b) ..	106,020	138,518	115,379	96,856	88,655	90,078
Basic slag (b) ..	757	220	26	2	—	—
Norway— Superphosphates ..	6,206	4,213	8,278	3	12	12
Portugal— Superphosphates ..	63,895	105,649	96,924	44,159	52,824	53,672
Spain— Superphosphates, etc. ..	62,980	70,714	31,023	66,047	84,705	86,064
Di-calcium phosphates ..	2,418	492	1,784	2,661	4,921	5,000
Sweden— Phosphate rock ..	—	21	1,787	—	—	—
Di-calcium phosphates ..	16,426	25,644	26,873	41,664	34,622	35,178
Basic slag ..	20,190	24,328	32,164	26,147	26,111	26,530

(a) Years ended June 30 of that stated.

 (b) P<sub>2</sub>O<sub>5</sub> content.

## EXPORTS OF PHOSPHATES, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>U.S.S.R.—</b>						
Apatite ore .. ..	77,600	88,977	59,500	46,600	48,620	49,400
do. concentrates ..	4,212,900	4,438,377	5,026,300	5,519,000	5,511,556	5,600,000
Superphosphates ..	280,300	372,226	438,500	436,100	640,325	650,600
<b>Yugoslavia—</b>						
Superphosphates ..	348,287	282,157	340,468	109,161	32,605	33,128
<b>Algeria—</b>						
Phosphate rock ..	12,578	86,681	240,700	414,249	445,000	452,000
<b>Egypt—</b>						
Phosphate rock ..	365,000	496,000	444,000	403,055	314,256	319,299
<b>Morocco—</b>						
Phosphate rock ..	9,057,177	9,195,992	9,922,012	10,132,804	11,353,431	11,535,625
Hyperphosphates ..	3,573	7,559	13,656	1,851	1,202	1,222
Superphosphates ..	136,855	184,133	235,634	179,901	103,619	105,282
<b>Senegal—</b>						
Phosphate rock ..	704,132	697,518	743,371	687,622	845,501	859,069
Aluminium phosphates	94,135	74,436	53,796	93,485	95,320	96,850
Phosphate fertilizers ..	21,468	17,287	25,900	<i>n.a.</i>	48,108	48,880
<b>South Africa—</b>						
Phosphate rock ..	458	958	1,587	206	225	229
Super-phosphates ..	2,116	2,157	6,915	5,734	7,349	7,467
Other phosphatic fertilizers ..						
<b>South West Africa—</b>						
Phosphatic guano ..	1,124	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Togo—</b>						
Phosphate rock ..	953,433	1,003,876	r 1,254,478	1,315,283	1,480,538	1,504,296
<b>Tunisia—</b>						
Phosphate rock ..	r 2,287,605	2,263,560	r 2,384,526	1,791,803	2,299,127	2,336,022
Hyperphosphates ..	r 74,195	13,739	21,946	55,882	28,030	28,480
Superphosphates ..	166,660	376,264	341,828	297,000	367,838	373,741
<b>Mexico—</b>						
Phosphate rock ..	36,468	33,874	28,339	22,131	12,974	13,182
<b>Netherlands Antilles—</b>						
Phosphate rock ..	145,140	r 116,469	91,667	111,384	90,076	91,521
<b>United States—</b>						
Phosphate rock ..	8,263,666	9,194,137	10,788,393	10,150,891	9,752,687	9,909,189
<b>Superphosphates—</b>						
Single .. ..	78,832	67,463	84,848	24,896	34,126	34,674
Concentrated ..	570,558	564,276	1,034,277	700,392	630,879	641,003
Sodium phosphates ..	19,858	24,177	17,074	16,655	20,627	20,958
Ammonium .. ..	689,548	1,134,311	1,134,045	841,040	912,373	927,014
Other phosphatic fertilizers ..	31,921	31,875	32,346	31,692	24,216	24,605
<b>French Polynesia (Makatea)—</b>						
Phosphate rock ..	196,953	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Israel—</b>						
Phosphate rock ..	416,807	413,365	637,116	778,781	521,218	529,583
<b>Japan—</b>						
Phosphate rock ..	898	591	1,349	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Superphosphates ..	15,899	13,147	22,851	15,271	14,815	15,053
Thermal phosphates ..	17,131	r 10,336	r 9,772	12,032	18,688	18,988
Ammonium phosphate ..	719	8,395	892	327	3,386	3,441
Ammonium sulphate phosphate ..	18,975	45,614	59,634	48,363	48,901	49,686
Other phosphatic fertilizers ..	3,602	3,403	1,555	9,409	5,600	5,690
<b>Jordan—</b>						
Phosphate rock ..	743,109	867,733	1,076,945	913,629	645,863	656,227
<b>Lebanon—</b>						
Superphosphates ..	14,159	16,808	34,701	55,836	<i>n.a.</i>	<i>n.a.</i>



## IMPORTS OF PHOSPHATES, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Phosphate rock.. ..	1,638,486	1,586,966	1,843,057	1,665,393	1,571,740	1,596,966
Superphosphates .. ..	2,666	46,681	31,512	5,559	15,203	15,447
Basic slag .. ..	42,240	41,977	40,141	42,434	54,158	55,027
Ammonium phosphate .. ..	3,222	10,451	30,118	5,174	7,286	7,403
Ghana—						
Superphosphates .. ..	1	—	160	734	—	—
Other phosphatic fertilizers .. ..	1	6	227	210	1,046	1,063
Kenya—						
Superphosphates .. ..	18,976	14,509	15,710	16,075	14,105	14,331
Other phosphatic fertilizers .. ..	1,591	640	3,335	1,414	4,433	4,504
Mauritius—						
Phosphatic guano .. ..	5,780	9,545	10,501	10,071	8,565	8,703
Phosphatic fertilizers .. ..	1,378	2,941	3,851	2,435	3,534	3,591
Nigeria—						
Phosphatic fertilisers .. ..	16,023	28,389	23,963	23,093	14,103	14,329
Sierra Leone—						
Superphosphates .. ..	556	418	420	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other phosphatic fertilizers .. ..	1,449	10	562	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania—						
Superphosphates .. ..	906	1,168	2,552	1,974	2,506	2,546
Other phosphatic fertilizers .. ..	4	1	82	1,007	615	625
Uganda—						
Superphosphates .. ..	974	530	757	263	728	740
Other phosphatic fertilizers .. ..	2	401	44	178	757	769
Zambia—						
Phosphatic fertilizers .. ..	1,767	3,265	919	492	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Phosphate rock .. ..	1,947,626	2,035,506	2,098,196	1,965,474	2,205,402	2,240,792
Superphosphates, single do. concentrated .. ..	63,113	31,688	12,854	4,803	4,449	4,520
Calcium phosphate .. ..	40,570	41,804	26,969	20,020	55,381	56,270
Sodium phosphates .. ..	19,297	18,726	18,129	19,464	20,967	21,304
Sodium phosphates .. ..	7,450	8,801	6,361	5,757	5,877	5,971
Antigua—						
Phosphatic fertilizers .. ..	14	—	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Barbados—						
Phosphatic fertilizers .. ..	58	144	30	10	32	32
Grenada—						
Superphosphates .. ..	381	944	692	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other phosphatic fertilizers .. ..	910	766	550	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Jamaica—						
Phosphatic fertilizers .. ..	2,327	13,724	2,756	9,346	<i>n.a.</i>	<i>n.a.</i>
St. Kitts—						
Phosphatic fertilizers .. ..	145	1,751	977	89	<i>n.a.</i>	<i>n.a.</i>
St. Lucia—						
Phosphatic fertilizers .. ..	58	—	12	37	<i>n.a.</i>	<i>n.a.</i>
St. Vincent—						
Superphosphates .. ..	78	—	386	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Superphosphates .. ..	<i>n.a.</i>	490	1,778	160	762	774

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Guyana—						
Superphosphates ..	315	385	444	141	415	422
Other phosphatic fertilizers ..	2,340	2,321	3,114	2,386	3,154	3,205
Ceylon—						
Phosphate rock..	40,002	24,755	—	—	n.a.	n.a.
Superphosphates ..	582	2,291	7,009	n.a.	n.a.	n.a.
Other phosphatic fertilizers ..	5,432	23,630	25,340	38,875	n.a.	n.a.
Cyprus—						
Superphosphates ..	25,738	19,913	27,152	18,091	12,369	12,567
Hong Kong—						
Phosphatic fertilizers ..	8	88	10	—	—	—
India (b)—						
Phosphate rock..	845,528	594,496	831,855	636,130	740,339	752,219
Other natural phosphates ..	—	4,843	—	—	—	—
Superphosphates ..	50	1,517	161	114	—	—
Ammonium phosphate ..	128,902	459,136	353,524	126,906	43,930	44,635
Malaysia (West)—						
Natural phosphates ..	111,066	100,193	84,282	79,358	86,362	87,748
Phosphatic fertilizers ..	6,471	6,014	3,863	6,192	5,545	5,634
Sabah—						
Natural phosphates ..	579	555	491	59	58	59
Other phosphatic fertilizers ..	185	296	137	802	1,911	1,942
Sarawak—						
Natural phosphates ..	2,610	5,644	3,556	n.a.	n.a.	n.a.
Phosphatic fertilizers ..	1,945	107	147	n.a.	n.a.	n.a.
Australia (a)—						
Phosphate rock..	2,795,056	3,271,814	3,295,780	3,176,565	2,649,319	2,691,833
Calcium phosphates ..	1,954	2,076	1,595	2,505	907	922
Other phosphatic fertilizers ..	266	35	30	(c) 14,021	(c) 1,623	(c) 1,649
Fiji—						
Phosphatic fertilizers ..	3,448	2,716	4,651	4,608	n.a.	n.a.
New Zealand (a)—						
Phosphate rock..	1,026,480	1,051,120	871,849	1,019,997	1,053,969	1,070,885
Superphosphates ..	66	11,340	50	161	n.a.	n.a.
Basic slag ..	11,848	9,929	7,972	5,589	5,135	5,217
Other phosphates ..	2,928	2,791	13,742	4,718	10,511	10,680
Irish Republic—						
Phosphate rock..	255,149	351,901	418,772	333,207	379,294	385,382
Superphosphates ..	5,952	10,590	5,311	15,052	15,657	15,908
Basic slag ..	88,677	116,205	144,640	149,705	150,061	152,469
Di-calcium phosphate ..	2,279	1,615	395	505	1,939	1,970
Other phosphatic fertilizers ..	2,839	12	25	394	1,752	1,780

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Owing to reclassification not comparable with earlier years.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Phosphate rock.. ..	260,544	270,378	316,766	301,035	260,419	264,598
Superphosphates (b) ..	6,115	1,274	1,150	465	1,147	1,166
Basic slag (a) .. ..	320,734	300,834	321,468	245,012	289,587	294,234
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Phosphate rock.. ..	1,180,569	1,446,254	1,776,641	1,811,264	1,870,446	1,900,461
Superphosphates (a) ..	873	200	1,333	8,720	4,076	4,142
Basic slag (a) .. ..	3	134	76	—	1	1
<b>Bulgaria—</b>						
Phosphate rock .. ..	691,011	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Czechoslovakia—</b>						
Phosphatic fertilizers (a)	266,000	292,000	286,000	322,000	355,000	361,000
<b>Denmark—</b>						
Phosphate rock.. ..	301,167	276,423	270,039	324,582	313,632	318,665
Superphosphates .. ..	38,198	20,932	45,733	36,202	24,371	24,762
Di-calcium phosphates	34,346	34,562	33,013	35,268	42,276	42,955
Basic slag .. ..	4,087	2,857	2,681	822	571	580
<b>Finland—</b>						
Phosphate rock.. ..	381,034	346,277	448,469	499,662	388,190	394,419
Superphosphates .. ..	1,573	295	339	884	695	706
Basic slag .. ..	11,170	13,173	10,993	10,364	8,743	8,883
<b>France—</b>						
Phosphate rock.. ..	2,800,037	2,965,701	3,206,220	3,357,311	3,493,235	3,549,291
Aluminium phosphates	87,604	84,415	99,710	91,861	85,498	86,870
Other phosphates .. ..	5,195	10,553	37,418	17,952	435	442
Superphosphates .. ..	238,616	272,533	298,395	327,583	337,574	342,991
Calcined phosphates ..	25,004	35,737	34,451	39,718	35,298	35,865
Basic slag .. ..	671,942	732,778	827,485	927,578	862,874	876,721
Di-calcium phosphates	10,389	1,415	6,858	7,713	483	491
<b>Germany (Federal)—</b>						
Phosphate rock, etc. ..	2,466,740	2,629,268	2,552,303	2,683,030	2,757,764	2,802,018
Superphosphates .. ..	16,917	26,868	26,915	28,030	20,992	21,329
Basic slag .. ..	576,801	527,400	508,257	417,647	414,714	421,369
Other phosphatic fertilizers ..	1,176	1,319	1,159	1,703	6,176	6,275
<b>Germany (East) (a)—</b>						
Phosphate rock .. ..	305,800	347,400	449,000	438,267	480,700	488,400
Other phosphatic fertilizers ..	74,178	56,308	40,323	46,301	23,951	24,335
<b>Greece—</b>						
Phosphate rock.. ..	223,844	326,531	387,842	314,072	175,916	178,739
Basic slag .. ..	98	49	n.a.	n.a.	—	—
Other phosphatic fertilizers ..	20,586	18,137	n.a.	n.a.	—	—
<b>Hungary—</b>						
Phosphate rock.. ..	397,000	486,198	490,810	587,268	594,008	603,540
<b>Iceland—</b>						
Superphosphates .. ..	10,280	8,519	8,254	9,342	7,543	7,664
<b>Italy—</b>						
Phosphate rock.. ..	1,847,210	1,870,354	2,129,605	1,866,083	2,069,230	2,102,435
Superphosphates .. ..	39,862	17,335	25,700	23,006	76,106	77,327
Basic slag .. ..	105,660	111,686	99,492	108,174	110,932	112,712
<b>Netherlands—</b>						
Phosphate rock.. ..	695,094	835,448	1,223,197	1,217,135	1,557,698	1,582,695
Superphosphates (a) ..	48,558	47,978	29,124	28,675	19,326	19,636
Basic slag .. ..	29,839	24,464	22,153	20,618	19,212	19,520
Di-calcium phosphates	336	99	n.a.	n.a.	n.a.	n.a.
<b>Norway—</b>						
Phosphate-rock.. ..	222,517	234,801	308,599	277,236	363,353	369,184
Basic slag .. ..	6,625	6,064	8,286	5,861	8,324	8,458

 (a)  $P_2O_5$  content.

(b) Including other phosphatic fertilisers.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Poland—						
Apatite concentrates ..	620,000	428,000	524,000	586,000	651,000	662,000
Phosphate rock ..	588,000	602,000	940,000	1,251,000	1,334,000	1,356,000
Portugal—						
Phosphate rock ..	220,398	292,074	294,992	298,482	244,934	248,864
Basic slag ..	9,949	9,199	8,813	10,901	9,923	10,082
Roumania—						
Phosphate rock (a) ..	204,000	216,132	202,353	303,824	311,900	317,000
Spain—						
Phosphate rock ..	1,134,671	1,135,684	1,220,922	1,321,923	1,364,350	1,386,244
Superphosphates, etc. ..	1,921	1,083	2,953	35,738	11,208	11,388
Basic slag ..	32,241	25,050	26,033	29,486	20,277	20,602
Di-calcium phosphates	3,528	6,499	2,039	11,117	8,550	8,687
Sweden—						
Phosphate rock ..	418,128	503,748	519,637	513,100	500,542	508,574
Superphosphates ..	18,157	226	18,349	41,628	31,714	32,223
Di-calcium phosphates	2,448	3,002	2,522	5,278	5,204	5,288
Switzerland—						
Phosphate rock ..	28,895	27,063	21,610	21,337	11,014	11,191
Superphosphates, etc. ..	14,593	16,172	17,602	16,861	17,881	18,168
Basic slag ..	191,253	197,363	195,645	190,595	181,914	184,833
Di-calcium phosphates	10,975	12,099	9,851	9,902	10,318	10,484
Yugoslavia—						
Phosphate rock ..	677,410	683,283	784,387	715,866	777,201	789,673
Superphosphates ..	3	5,999	4,921	28,594	—	—
Basic slag ..	11,122	61,931	18,798	26,081	7,726	7,850
Algeria—						
Phosphate fertilizers ..	2,510	7,312	64,215	77,556	n.a.	n.a.
Angola—						
Superphosphates ..	3,262	3,937	3,732	4,420	5,123	5,206
Canary Islands—						
Phosphate rock ..	17,782	18,665	18,759	22,155	15,790	16,044
Central African Republic—						
Phosphate fertilizers ..	30	723	2,640	224	n.a.	n.a.
Congo (Brazza)—						
Phosphate fertilizers ..	1,255	42	29	35	n.a.	n.a.
Gabon						
Phosphate fertilizers ..	2	5	49	44	n.a.	n.a.
Malagasy Republic—						
Phosphate rock ..	490	387	632	1,574	489	496
Phosphatic fertilizers ..	503	656	3,079	942	5,163	5,246
Morocco—						
Di-calcium phosphates	9	18	15	34	32	33
Reunion—						
Phosphate fertilizers ..	282	279	1,296	638	n.a.	n.a.
South Africa—						
Phosphate rock ..	154,797	86,188	75,957	2	31	32
Basic slag ..	20,625	17,553	15,755	18,820	11,212	11,392
Other phosphatic fertilizers ..	63,665	77,851	1,083	9,539	13,329	13,543
Sudan—						
Superphosphates ..	153	325	44	30	541	550
Tunisia—						
Phosphatic fertilizers ..	—	—	6	1	7	7
Costa Rica—						
Phosphatic fertilizers ..	15,267	14,905	19,974	12,908	23,532	23,910
French West Indies—						
Guadeloupe—						
Phosphatic fertilizers ..	469	670	459	615	n.a.	n.a.
Martinique—						
Phosphatic fertilizers ..	1,020	1,441	1,007	558	n.a.	n.a.

 (a)  $P_2O_5$  content.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Guatemala—						
Phosphatic fertilizers ..	82	799	6,209	8,600	11,523	11,708
Honduras—						
Phosphatic fertilizers ..	2,045	892	469	436	452	459
Mexico—						
Phosphate rock ..	285,195	323,155	321,580	619,763	811,971	825,001
Superphosphates ..	3	13,960	19,329	<i>n.a.</i>	—	—
Ammonium phosphates	—	5	—	14,348	12,817	13,023
Nicaragua—						
Phosphatic fertilizers ..	14,670	23,652	14,438	8,531	11,677	11,865
Panama Republic—						
Phosphatic fertilizers ..	1,898	1,336	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Phosphatic fertilizers ..	23,705	16,615	16,110	31,481	11,444	11,628
United States—						
Phosphate rock ..	158,721	123,796	103,142	124,847	121,369	123,317
Basic slag ..	97	356	<i>n.a.</i>	21	<i>n.a.</i>	<i>n.a.</i>
Di-calcium phosphates	19,799	5,197	19,018	13,005	29,611	30,086
Ammonium phosphates	159,634	189,081	220,554	244,078	407,757	414,301
Brazil—						
Phosphate rock ..	110,427	221,882	324,599	305,222	421,396	428,158
Superphosphates—						
Single ..	6,360	18,221	14,497	11,757	24,907	25,307
Concentrated ..	51,511	81,792	99,888	100,243	194,921	198,049
Calcined phosphates ..	1,985	1,158	98	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Di-calcium phosphate ..	1,417	789	5,926	4,574	5,176	5,259
Basic slag ..	6,056	6,881	11,996	8,323	7,872	7,998
Chile—						
Superphosphates ..	180,000	84,142	58,618	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Basic slag ..		7,935	1,984	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Di-calcium phosphates		19,465	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other phosphatic fertilizers ..		27,737	86,909	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Phosphate rock ..	17,083	19,472	20,473	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Superphosphates ..	24,231	16,282	36,973	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Di-calcium phosphates	12	20	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Phosphate rock ..	—	5,996	6,841	11,010	<i>n.a.</i>	<i>n.a.</i>
Phosphatic fertilizers ..	221	9,359	7,676	7,293	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Phosphate rock ..	82,563	73,098	37,211	52,113	36,649	37,237
Venezuela—						
Calcium phosphates and superphosphates ..	6,498	12,676	2,168	1,459	<i>n.a.</i>	<i>n.a.</i>
Burma—						
Phosphatic fertilizers ..	—	650	9,522	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Calcium phosphate ..	45,290	1,441	1,427	1,309	1,300	1,321
Other phosphatic fertilizers ..		<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (a)—						
Phosphatic fertilizers ..	37,302	50,480	28,262	60,500	41,533	42,200
Iraq—						
Phosphatic fertilizers ..	5,136	4,096	1,483	1,664	6,894	7,005

(a) Years ended March 20 following that stated.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Phosphate rock . . . . .	2,518,555	2,589,960	3,363,099	2,916,823	3,075,650	3,125,006
Calcium phosphates . . . . .	6,851	2,765	4,785	5,068	2,508	2,549
Ammonium phosphate	1,852	99	571	578	2,139	2,174
Other phosphatic fertilizers . . . . .	4,378	9,562	18,967	16,854	13,132	13,343
Jordan—						
Phosphatic fertilizers . . . . .	5,025	4,192	6,035	7,342	6,351	6,453
Korea (South)—						
Calcium phosphates . . . . .	18,414	90,211	5	—	—	—
Other phosphatic fertilizers . . . . .	315,277	217,330	138,149	—	—	—
Lebanon—						
Phosphatic fertilizers . . . . .	1,942	2,420	3,144	98	100	102
Philippine Republic—						
Phosphate rock . . . . .	23,621	104,443	148,565	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Superphosphates . . . . .	<i>n.a.</i>	979	1,225	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium phosphate	<i>n.a.</i>	4,432	10,288	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other phosphatic fertilizers . . . . .	<i>n.a.</i>	249	1,605	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Phosphatic fertilizers . . . . .	19,179	13,211	25,830	29,079	33,651	34,191
Thailand—						
Superphosphates . . . . .	2,751	2,638	1,612	1,368	2,116	2,150
Phosphatic fertilizers . . . . .	45,810	84,565	128,938	120,282	73,071	74,243
Turkey—						
Phosphate rock . . . . .	145,750	93,602	105,180	123,536	<i>n.a.</i>	<i>n.a.</i>
Superphosphates . . . . .	130,553	155,477	268,275	171,049	<i>n.a.</i>	<i>n.a.</i>
Ammonium phosphate	3,045	33	32	44	<i>n.a.</i>	<i>n.a.</i>
Other phosphatic fertilizers . . . . .	5,517	51,872	29,277	11,185	<i>n.a.</i>	<i>n.a.</i>

**PLATINUM**  
**PRODUCTION OF PLATINUM METALS**

Producing Country	Troy ounces					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada—						
Recovered from Ontario nickel-copper ores (c)—						
Platinum .. ..	396,059	401,263	485,891	310,404	461,200	14,345
Other platinum metals						
Australia—						
New South Wales—						
Concentrates (Pt content) ..	13	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
U.S.S.R.—						
Crude platinum (d) ..	1,800,000	1,900,000	2,000,000	2,100,000	2,200,000	68,400
Ethiopia—						
Crude platinum .. (d)	318	282	322	343	273	8
South Africa—						
Crude and matte (Pt metals content) (d)	780,000	825,000	850,000	950,000	1,500,000	46,700
Osmiridium (crude) (b)	3,400	(d) 8,000	(d) 14,000	(d) 14,000	(d) 2,800	(d) 87
United States (a)—						
New platinum metals recovered by refineries from crude platinum and gold and copper ores of domestic origin						
Platinum .. ..	18,103	6,736	4,816	8,702	8,036	250
Palladium .. ..	29,907	8,142	5,275	8,224	11,851	369
Iridium .. ..	1,513	754	454	570	1,261	39
Osmium .. ..	219	151	95	135	149	5
Rhodium .. ..	2,361	57	36	70	64	2
Ruthenium .. ..	558	11	6	11	10	—
Colombia (e)—						
Crude platinum ..	15,671	12,411	15,076	n.a.	n.a.	n.a.
Japan—						
Platinum .. ..	2,733	3,072	2,785	3,140	3,296	103
Palladium .. ..	5,495	3,327	3,651	3,877	4,610	143
<b>WORLD'S TOTAL (f)</b>	<b>3,000,000</b>	<b>3,000,000</b>	<b>3,400,000</b>	<b>3,400,000</b>	<b>4,200,000</b>	<b>130,600</b>

(a) Secondary platinum metals recovered in the United States were as follows (troy ounces):

	Kilograms.					
	1966	1967	1968	1969	1970	1970
Platinum .. ..	49,563	126,377	115,587	126,822	118,221	3,677
Palladium .. ..	50,009	215,162	195,620	227,763	207,582	6,457
Iridium .. ..	402	7,748	2,127	2,250	1,927	60
Osmium .. ..	728	2,377	672	208	121	4
Rhodium .. ..	2,434	11,505	12,176	11,743	13,394	417
Ruthenium .. ..	185	2,630	3,273	2,873	7,881	245

(b) Sales.

(c) Metal content of concentrates produced from nickel-copper ores.

(d) United States Bureau of Mines' estimate.

(e) Exports. Total production may be very much greater.

(f) Estimated.

**EXPORTS OF PLATINUM\***

Exporting Country and Description	Troy ounces					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
<b>Platinum—</b>						
Ingots, grain and powder .. ..	472,592	564,448	579,994	701,390	561,715	17,471
Other kinds (a) ..	111,286	115,304	199,269	152,610	216,540	6,735
Other platinum metals and alloys .. ..	378,853	422,785	454,235	459,037	447,268	13,912
<b>Canada—</b>						
Concentrates, etc. (b) ..	434,021	457,098	569,416	433,747	638,504	19,860
Platinum metals (b) ..	7,604	18,757	15,526	29,753	11,562	360
Scrap .. ..	32,406	26,397	32,041	35,810	30,262	941
<b>Australia (c)—</b>						
Platinum and platinum group metals .. ..	1,538	(a) 56,181	(a) 3,655	(a) 7,508	(a) 6,140	(a) 191
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Unwrought platinum and platinum metals	1,382	4,051	1,479	160	4,951	154
<b>Denmark—</b>						
Rods, sheets, wire, scrap, etc. .. ..	32	836	418	417	579	18
<b>France—</b>						
Unwrought platinum and scrap (a) .. ..	26,492	36,041	47,324	43,071	694,681	21,607
Palladium (inc. scrap) (a)	37,745	7,073	38,534	18,950	14,661	456
Drawn or rolled platinum .. ..	20,930	18,680	20,803	21,035	21,326	633
<b>Germany (Federal)—</b>						
Platinum metals (a) ..	364,686	270,291	357,868	371,919	318,839	9,917
<b>Italy—</b>						
Unwrought platinum ..	37,102	32,054	38,581	29,064	60,250	1,874
<b>Netherlands—</b>						
Unwrought platinum and platinum metals ..	7,877	17,811	11,124	10,803	3,987	124
Drawn or rolled .. ..	19,323	6,623	8,841	5,241	8,809	274
<b>Norway—</b>						
Platinum (incl. scrap) ..	14,564	19,901	21,670	20,544	19,580	609
<b>Switzerland—</b>						
Unwrought platinum ..	38,195	42,182	73,239	100,696	63,112	1,963

\*Official figures which, in many cases, do not include platinum sent by post.

(a) Including alloys.

(b) Platinum and platinum metals contained in concentrates and residues, exported for treatment. Of the refined and semi-processed platinum metals subsequently imported (see page 304), the following quantities were re-exported from Canada without change or alteration (troy ounces):

1966—199,152; 1967—164,033; 1968—83,228; 1969—52,694; 1970—20,399 (634 Kilogrms).

(c) Years ended June 30 of that stated.



EXPORTS OF PLATINUM (cont.)

Exporting Country and Description	Troy ounces					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
U.S.S.R. . . . .	(a)	(a)	(a)	(a)	(a)	(a)
Yugoslavia—						
Platinum . . . . .	15,465	7,620	23,309	15,947	23,148	720
United States—						
Bars, etc. (Pt content) . . . . .	8,455	76,489	55,373	73,220	8,370	260
Cobalt, sheets, wire, etc. . . . .	93,576	134,987	171,169	150,347	180,120	5,602
Platinum, rhodium, etc. . . . .						
and alloys . . . . .	103,425	118,017	172,159	277,495	149,766	4,658
Zambia—						
Platinum . . . . .	15,671	12,411	15,076	n.a.	n.a.	n.a.

(a) Exports of platinum metals from U.S.S.R. are not published, but imports into the under-mentioned countries from U.S.S.R. were as follows (troy ounces):

	1966	1967	1968	1969	1970	Kilogrms.
United Kingdom . . . . .	52,777	52,437	27,528	44,625	31,781	1,019
France . . . . .	20,364	15,462	63,763	93,800	36,539	1,136
Germany (Federal) . . . . .	291,736	196,859	205,057	203,353	493,674	15,355
Netherlands . . . . .	11,478	6,237	15,882	2,315	3,826	119
United States . . . . .	389,482	129,915	429,730	285,954	494,424	15,378
Japan . . . . .	382,003	417,311	638,953	577,359	711,260	22,123

## IMPORTS OF PLATINUM\*

Importing Country and Description	Troy ounces					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Ores and concentrates	(£24,146,847)	(£38,283,000)	(£44,563,018)	(£52,791,239)	<i>n.a.</i>	<i>n.a.</i>
Platinum and platinum group metals .. ..	123,789	127,795	152,762	167,832	182,999	5,692
Canada— Platinum and platinum group metals (c) ..	197,853	212,889	207,961	118,946	60,745	1,889
Nigeria— Platinum and platinum group metals .. ..	37,209	22,348	2,117	2,985	46,647	1,451
Hong Kong— Platinum and platinum group metals .. ..	25,866	48,318	80,469	64,216	73,745	2,294
India (a)— Platinum .. ..	1,146	1,589	332	1,323	5,504	171
Malaysia (West)— Unwrought platinum ..	62	233	15	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sarawak— Platinum .. ..	—	1	29	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Singapore— Unwrought platinum ..	7,673	4,625	158	156	3,677	114
Australia (b)— Platinum bars, rods, sheets, etc. .. ..	} (d) 6,015	} (d) 7,040	} (d) 3,357	} (d) 9,273	} (d) 11,585	} (d) 360
Bars, rods, sheets, etc. of other platinum metals .. ..						
Platinum metal powder	(d) 701	(d) 1,021	(d) 8,332	(d) 14,237	(d) 156	(d) 5
Wire .. ..	(d) 11,123	(d) 1,307	(d) 1,586	(d) 2,489	(d) 2,638	(d) 82
New Zealand (b)— Platinum and platinum group metals .. ..	8,737	1,353	1,243	2,307	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria— Unwrought platinum and platinum metals	2,476	4,083	3,987	5,626	15,207	473
Denmark— Rods, sheets, wire and scrap .. ..	7,073	7,871	9,067	11,124	15,400	479
Finland— Unwrought platinum etc.	5,276	—	1,993	10,578	1,804	56
France— Unwrought platinum, alloys and scrap ..	78,176	81,856	75,505	121,764	101,500	3,157
Unwrought palladium, alloys and scrap ..	66,884	55,589	91,221	107,257	66,102	2,056
Drawn or rolled platinum	15,938	16,879	26,505	41,847	30,447	947
Germany (Federal)— Platinum metals and alloys .. ..	540,872	491,135	584,050	724,870	645,232	20,069
Italy— Unwrought platinum ..	37,134	46,040	51,440	63,208	66,809	2,078
Drawn or rolled ..	9,484	9,806	3,215	10,931	12,314	383
Other platinum metals	23,663	25,624	25,721	36,973	52,213	1,624

\*Official figures, which in many cases do not include platinum sent by post.

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

(c) Imports of refined and semi-processed platinum metals derived from Canadian concentrates and residues; mostly re-exported (see page 302).

d) Including alloys.

## IMPORTS OF PLATINUM (cont.)

Importing Country and Description	Troy ounces					Kilograms
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands—						
Unwrought platinum and platinum metals ..	33,694	32,794	32,697	16,236	22,152	689
Drawn or rolled ..	31,186	27,489	37,327	35,108	48,097	1,496
Norway—						
Unwrought platinum ..	1,222	1,125	354	386	675	21
Drawn or rolled ..	1,800	1,543	1,222	997	2,090	65
Portugal—						
Sheets, wire, etc. ..	1,022	16,306	3,589	1,096	700	22
Switzerland—						
Unwrought platinum ..	37,809	65,293	87,256	73,111	71,567	2,226
Yugoslavia—						
Unwrought platinum ..	21,863	19,355	52,780	17,073	27,360	851
South Africa—						
Platinum .. ..	3,663	3,651	6,653	3,808	1,343	42
Mexico—						
Platinum .. ..	64	249	14	13	<i>n.a.</i>	<i>n.a.</i>
Palladium .. ..	5,222	5,621	3,980	4,069	4,192	130
United States—						
Ore (a) .. ..	63,622	102,121	54,943	130,274	64,640	2,011
Grains and nuggets (a) ..	86,700	41,798	64,777	67,560	28,937	900
Sponge and scrap (a) (b)	192,486	257,703	304,624	272,794	346,069	10,764
Ingots, bars, sheets (a) (b)	78,862	64,344	68,718	58,404	124,911	3,885
Iridium .. ..	12,319	11,401	17,461	10,207	8,834	275
Osmium and osmiridium }						
Palladium .. ..	855,522	613,669	1,067,595	249,389	270,134	8,402
Rhodium and ruthenium	72,507	100,433	61,987	52,976	68,309	2,125
Brazil—						
Unwrought platinum ..	3	—	579	764	900	28
Colombia—						
Unwrought platinum ..	64	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Unwrought platinum ..	3,054	86,839	52,020	4,726	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Platinum .. ..	185,018	234,324	210,492	272,216	465,353	14,474
Palladium .. ..	379,787	354,701	600,098	491,678	632,713	19,679
Rhodium .. ..	6,123	9,177	9,103	8,514	14,662	456
Iridium, etc. .. ..	2,359	2,226	2,043	7,473	4,945	154
Lebanon—						
Unwrought platinum ..	3,311	4,060	r 4,248	3,747	3,627	113
Turkey—						
Sheets .. ..	772	8,713	64	289	<i>n.a.</i>	<i>n.a.</i>

(a) *Platinum content.*

(b) As recorded in official trade returns. According to the U.S. Bureau of Mines, however, these items have been re-classified as follows:

	Troy ounces						Kilograms
	1966	1967	1968	1969	1970	1970	
Sponge and scrap ..	(d) 851	(c) 257,703	(c) 303,561	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Platinum metal ..	272,482	322,764	372,238	331,103	471,936	14,678	

(c) *Sponge only.*

(d) *Scrap only.*

**POTASH MINERALS**  
**PRODUCTION OF POTASH**

Producing Country and Description	Long tons Tonnes					K <sub>2</sub> O Content or Equivalent					Long tons Tonnes	
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1970	1970
<b>COMMONWEALTH COUNTRIES</b>												
Canada— Potash salts	n.a.	n.a.	4,339,000	5,466,000	5,050,000	5,131,000	2,127,904	2,605,010	3,346,000	3,093,000	3,093,000	3,143,000
<b>OTHER COUNTRIES</b>												
France (b)— Sylvinite, 12–22% K <sub>2</sub> O Fertilizer salts 30–40% K <sub>2</sub> O.. Chloride 50% K <sub>2</sub> O and over	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7,294	8,578	29,546			
Germany— Federal Republic— Kainite, sylvinitic, etc. Eastern— Potash salts .. .. Italy— Crude potash salts	21,143,258 n.a. n.a. n.a. n.a.	19,536,819 n.a. n.a. n.a. n.a.	19,868,384 n.a. n.a. n.a. 1,800,000	19,989,000 n.a. n.a. n.a. 2,100,000	20,697,560 n.a. n.a. n.a. n.a.	21,029,703 n.a. n.a. n.a. n.a.	2,421,328 118,257 1,663,288 2,171,000 a 246,000	2,520,189 115,446 1,567,500 2,200,000 246,000	2,585,000 64,053 1,671,799 a 2,264,000 276,000	2,603,007 1,864,000 2,603,007 2,381,000 224,000	2,603,007 1,864,000 2,603,007 2,381,000 224,000	2,644,849 1,894,000 2,644,849 2,419,000 228,000

(a) United States Bureau of Mines' estimate.

(b) Crude salts as mined. The K<sub>2</sub>O content by salts relates to the marketable product only.

PRODUCTION OF POTASH (cont.)

Producing Country and Description	Long tons Tonnes					K <sub>2</sub> O Content or Equivalent					Long tons Tonnes	
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1970	1970
<b>OTHER COUNTRIES</b> (cont.)												
Spain— Carnallite, sylvinite, etc.	3,750,112	4,328,068	4,612,564	4,907,000	4,728,016	4,803,887	497,859	534,619	545,000	507,459	515,602	
U.S.R. (a)— Potash salts	..	n.a.	n.a.	n.a.	n.a.	n.a.	2,822,000	3,100,000	3,130,000	4,379,000	4,450,000	
United States— Potash salts (b)	..	5,090,000	4,258,000	4,391,000	4,333,000	4,402,000	2,946,000	2,430,000	2,504,000	2,019,000	2,261,000	
Chile— Nitrate	..	n.a.	n.a.	n.a.	n.a.	n.a.	(a)14,500	n.a.	n.a.	n.a.	n.a.	
Israel— Chloride	..	500,000	590,000	539,000	855,000	869,000	295,000	350,000	318,000	505,000	513,000	
<b>WORLD'S TOTAL (c)</b>	..						15,400,000	15,700,000	16,900,000	17,600,000	17,900,000	

(a) United States Bureau of Mines' estimate.

(b) Marketable production.

(c) Estimated.

## EXPORTS OF POTASH SALTS

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Fertilizer Salts .. .. .	156	449	535	373	12,058	12,251
Canada (c)— Fertilizer salts (K <sub>2</sub> O content) .. .. .	1,496,584	1,789,736	2,431,671	2,339,885	3,257,486	3,309,769
India (a)— Nitrate .. .. .	6	—	9	19	11	11
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
E.U.—						
Fertilizer salts (b) .. .. .	2,337	12	8	94	347	353
Carbonate .. .. .	1,624	1,872	1,792	483	2,102	2,136
Chloride (b) .. .. .	326,962	391,076	356,741	191,556	196,294	199,444
Nitrate .. .. .	—	—	—	40	3	3
Sulphate (b) .. .. .	142,018	155,992	151,276	156,940	164,895	167,541
<b>France—</b>						
Sylvinite, etc. .. .. .	69,509	68,652	55,848	58,563	60,356	61,325
Carbonate .. .. .	21,775	28,620	30,290	31,400	n.a.	n.a.
Caustic potash .. .. .	91,161	10,244	9,412	8,618	9,942	10,102
Chlorate .. .. .	1,442	1,385	1,500	1,648	1,938	1,969
Chloride .. .. .	973,842	1,147,427	1,051,055	944,247	770,096	782,454
Sulphate .. .. .	898	1,138	733	754	612	622
Nitrate .. .. .	1,939	2,773	2,423	4,317	3,838	3,900
<b>Germany (Federal)—</b>						
Fertilizer salts .. .. .	1,572,209	1,326,785	993,066	1,562,088	1,802,539	1,831,465
Carbonate .. .. .	13,026	12,570	14,611	15,269	16,576	16,842
Caustic potash .. .. .	11,304	10,585	10,322	10,217	10,620	10,791
Chlorate .. .. .	439	364	45	223	94	96
Nitrate .. .. .	14,033	16,688	14,949	28,955	n.a.	n.a.
<b>Germany (East)—</b>						
Fertilizer salts (K <sub>2</sub> O content) .. .. .	1,352,000	1,516,000	1,476,000	1,629,000	1,712,000	1,739,000
Carbonate .. .. .	9,245	8,511	9,236	8,253	8,232	8,364
Caustic potash .. .. .	7,108	7,505	7,316	8,982	12,205	12,401
<b>Italy—</b>						
Nitrate .. .. .	2,476	1,504	1,690	n.a.	n.a.	n.a.
Caustic potash .. .. .	2,390	41	—	20	2,125	2,159
Sulphate .. .. .	117,966	123,678	25,440	101,784	44,936	45,657
<b>Netherlands—</b>						
Carbonate .. .. .	1,172	1,642	1,720	2,609	2,830	2,876
Caustic potash .. .. .	32	32	33	47	86	87
Chloride .. .. .	428	833	451	471	145	147
Nitrate .. .. .	639	302	83	47	271	275
Sulphate .. .. .	411	231	211	294	150	152
<b>Poland—</b>						
Caustic potash .. .. .	961	705	495	n.a.	n.a.	n.a.
Chlorate .. .. .	1,080	680	473	n.a.	n.a.	n.a.
<b>Portugal—</b>						
Caustic potash .. .. .	46	91	335	450	13	13
Chloride .. .. .	272	422	306	579	964	979
Sulphate .. .. .	643	641	127	364	822	835
<b>Spain—</b>						
Chloride .. .. .	438,121	502,491	634,711	506,222	436,434	443,438
Nitrate .. .. .	709	883	1,268	1,644	1,798	1,827
Sulphate .. .. .	7,332	15,856	23,380	21,229	29,052	29,518

(a) Years ended March 31 following that stated.

(b) K<sub>2</sub>O content.

(c) Years ended June 30th of that stated.

## EXPORTS OF POTASH SALTS (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
<b>Sweden—</b>						
Carbonate .. ..	—	—	24	88	—	—
Caustic potash .. ..	2,651	3,068	2,528	2,771	2,575	2,616
<b>U.S.S.R.—</b>						
Fertilizer salts .. ..	1,072,000	1,343,737	1,694,300	1,651,900	3,051,040	3,100,000
<b>United States—</b>						
Chloride .. ..	761,692	899,044	956,412	923,340	708,713	720,086
Other fertilizer salts .. ..	129,129	100,199	206,637	176,138	148,394	150,775
Caustic potash .. ..	3,442	5,289	4,132	2,567	6,119	6,217
<b>Israel—</b>						
Fertilizer salts .. ..	(a) 654	2,041	(a) 1,404	3,779	(a) 1,801	(a) 1,830
<b>Japan—</b>						
Chlorate .. ..	939	739	704	1,054	935	950
Chloride .. ..	3,121	3,945	8,048	8,071	5,453	5,540
Sulphate .. ..	2,101	7,196	6,231	3,601	18,825	19,127
Caustic potash .. ..	297	1,141	5,853	903	2,088	2,121
Other fertilizer salts .. ..	—	868	677	225	863	877

(a) Potassium carbonate only.

IMPORTS OF POTASH SALTS

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Fertilizer salts .. ..	35,584	42,438	36,020	35,944	23,937	24,321
Carbonate .. ..	8,951	10,392	10,483	11,743	11,008	11,185
Caustic potash and lyes	2,482	2,122	2,300	2,068	2,616	2,658
Chloride .. ..	630,370	716,653	751,267	690,067	747,512	759,510
Nitrate .. ..	4,004	3,965	<i>n.a.</i>	<i>n.a.</i>	9,763	9,919
Sulphate .. ..	37,704	35,658	40,047	40,791	33,984	34,529
Other compounds .. ..	6,640	2,523	3,742	2,770	20,053	20,375
Ghana—						
Fertilizer salts .. ..	279	4	208	225	337	342
Kenya—						
Fertilizer salts .. ..	828	759	2,131	2,401	4,048	4,113
Mauritius—						
Fertilizer salts .. ..	8,490	9,468	4,499	5,954	5,275	5,360
Nigeria—						
Fertilizer salts .. ..	1,728	2,185	195	457	1,314	1,335
Sierra Leone—						
Fertilizer compounds ..	25	50	58	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania—						
Fertilizer salts .. ..	1,336	1,441	1,426	1,658	2,128	2,162
Uganda—						
Fertilizer salts .. ..	623	1,455	3,600	2,565	5,293	5,378
Canada—						
Caustic potash .. ..	1,472	1,504	1,713	1,351	1,621	1,647
Carbonate .. ..	704	619	674	894	976	992
Crude chloride .. ..	25,130	24,482	21,382	14,627	20,913	21,249
Nitrate .. ..	1,443	1,517	2,384	3,425	2,638	2,680
Crude sulphate .. ..	22,639	27,030	22,271	27,745	18,257	18,550
Other potassic fertilizers	10,545	19,145	17,977	22,834	24,288	24,678
Barbados—						
Fertilizer salts .. ..	4,475	4,164	4,011	3,010	799	812
Grenada—						
Fertilizer salts .. ..	370	43	25	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Jamaica—						
Fertilizer salts .. ..	8,032	10,243	11,580	13,763	<i>n.a.</i>	<i>n.a.</i>
St. Kitts—						
Potassic fertilizers ..	1,010	547	852	867	<i>n.a.</i>	<i>n.a.</i>
St. Lucia—						
Potassic fertilizers ..	120	2,995	805	1,610	16	16
St. Vincent—						
Chloride .. ..	1,881	1,295	2,352	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Chloride and sulphate ..	1,491	1,560	2,670	4,212	4,260	4,328
Guyana—						
Fertilizer salts .. ..	2,022	2,771	2,977	3,208	2,519	2,559
Ceylon—						
Kainite and sylvinite ..	—	—	—	25	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	53,896	50,550	55,096	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nitrate of potash refuse	20	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	2,270	295	263	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Cyprus—						
Fertilizer salts .. ..	370	292	583	896	840	853
Hong Kong—						
Nitrate .. ..	341	634	742	609	595	605
Chlorate .. ..	170	(a) 80	65	55	5	5
Other fertilizer salts ..	57	27	13	34	9	9

(a) Excess of re-exports



## IMPORTS OF POTASH SALTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>India (a)—</b>						
Carbonate .. ..	1,270	1,912	893	378	241	245
Caustic potash .. ..	2,557	2,869	951	171	13	13
Nitrate .. ..	5	—	—	—	—	—
Sulphate .. ..	23,629	13,277	49,824	5,067	20,257	20,582
Chlorate .. ..	172	—	—	84	103	105
Chloride .. ..	147,481	314,851	235,234	135,421	55,151	56,036
<b>Malaysia (West)—</b>						
Fertilizer salts .. ..	45,796	55,434	53,215	73,021	97,340	98,902
<b>Sabah—</b>						
Fertilizer salts .. ..	567	1,172	2,252	2,562	4,814	4,891
<b>Sarawak—</b>						
Fertilizer salts .. ..	1,065	1,450	770	n.a.	n.a.	n.a.
<b>Australia (c)—</b>						
Carbonate .. ..	1,153	1,217	1,011	1,610	1,673	1,700
Caustic potash .. ..	1,148	1,340	1,503	1,061	1,957	1,989
Chloride .. ..	82,411	110,970	114,438	118,554	110,178	111,946
Nitrate .. ..	421	1,602	603	368	5,187	5,270
Sulphate .. ..	11,152	8,168	15,467	12,981	17,083	17,357
Other fertilizer salts .. ..	14,570	760	220	3,397	5,876	5,970
Other compounds .. ..	312	389	392	657	450	457
<b>New Zealand (c)—</b>						
Chloride .. ..	172,249	152,637	115,340	142,936	153,917	156,388
Nitrate .. ..	185	517	230	192	n.a.	n.a.
Sulphate .. ..	4,046	2,996	2,997	4,156	3,334	3,387
Other fertilizer salts .. ..	1,063	336	247	118	n.a.	n.a.
Compounds other than fertilizer .. ..	227	147	118	242	n.a.	n.a.
<b>Irish Republic—</b>						
Fertilizer salts .. ..	9,592	7,303	10,897	6,923	8,289	8,422
Chloride .. ..	148,190	190,283	218,887	182,983	240,906	244,773
Other compounds .. ..	241	250	329	454	328	333
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Fertilizer salts .. ..	156,568	121,427	83,176	77,619	76,510	77,738
Caustic potash .. ..	415	444	443	510	648	659
Carbonate .. ..	962	895	809	1,278	1,107	1,125
Chloride .. ..	134,137	165,844	201,802	193,302	216,964	220,446
Nitrate .. ..	547	487	499	640	840	854
Sulphate .. ..	17,486	25,863	24,379	21,138	17,985	18,274
<b>Belgium-Luxemburg</b>						
E.U.—						
Fertilizer salts (b) .. ..	13,506	13,302	13,359	14,713	14,119	14,346
Carbonate .. ..	1,521	1,179	4,179	4,124	5,464	5,552
Chlorates .. ..	409	401	584	471	616	626
Chloride (b) .. ..	679,322	686,065	709,388	622,216	656,683	667,221
Nitrate .. ..	2,519	2,614	2,433	1,873	1,970	2,002
Sulphate (b) .. ..	7,259	8,368	13,483	8,177	15,902	16,157
<b>Czechoslovakia—</b>						
Fertilizer salts (K <sub>2</sub> O content) .. ..	397,000	381,000	474,000	451,000	518,000	526,000

(a) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

 (b) K<sub>2</sub>O content.

## IMPORTS OF POTASH SALTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Denmark—						
Carbonate .. ..	399	423	356	249	373	379
Caustic potash .. ..	1,064	1,094	1,381	1,188	1,402	1,425
Chloride .. ..	117	106	145	122	104	106
Chloride .. ..	217,250	236,188	191,242	217,024	214,414	217,855
Nitrate .. ..	1,314	1,477	1,410	1,399	1,390	1,412
Sulphate .. ..	1,134	5,226	11,231	12,824	11,938	12,130
Finland—						
Fertilizer salts .. ..	171,881	161,835	189,827	173,592	197,962	201,139
Carbonate .. ..	780	447	1,056	765	963	979
Caustic potash .. ..	275	298	264	250	312	317
Nitrate .. ..	461	278	926	551	932	947
Sulphate .. ..	13,968	16,328	9,303	11,273	18,031	18,320
France—						
Chloride .. ..	18,866	35,214	201,762	120,848	109,053	110,803
Sulphate .. ..	34,315	51,167	53,022	57,438	74,339	75,532
Caustic potash .. ..	105	107	176	63	212	216
Patent potash .. ..	7,852	7,814	9,241	10,566	11,026	11,203
Germany (Federal)—						
Fertilizer salts .. ..	37,160	81,580	47,636	85,472	22,172	22,528
Carbonate .. ..	4,681	3,249	3,417	3,391	3,415	3,470
Caustic potash .. ..	9,192	5,708	6,497	7,338	5,683	5,774
Chloride .. ..	535	491	626	975	710	721
Nitrate .. ..	4,577	4,235	4,387	3,860	3,508	3,564
Greece—						
Carbonate .. ..	3,102	1,800	2,070	856	1,726	1,754
Caustic potash .. ..	103	185	68	65	105	107
Nitrate .. ..	79	91	124	101	540	549
Sulphate .. ..	27,917	12,991	19,137	30,852	20,183	20,507
Hungary—						
Fertilizer salts .. ..	281,000	330,693	380,888	450,180	595,210	604,761
Iceland—						
Fertilizer salts .. ..	9,031	7,240	7,709	5,590	5,270	5,355
Carbonate .. ..	80	59	72	372	205	208
Caustic potash .. ..	26	30	6	99	28	28
Italy—						
Fertilizer salts .. ..	40,986	44,052	50,497	47,019	43,875	44,579
Carbonate .. ..	5,652	5,380	6,529	6,278	7,292	7,409
Caustic potash .. ..	322	329	264	377	442	449
Chloride .. ..	215,912	197,718	204,006	174,962	251,744	255,784
Nitrate .. ..	1,523	1,744	1,846	2,322	4,781	4,858
Sulphate .. ..	3,965	4,602	3,862	5,095	21,321	21,663
Netherlands—						
Fertilizer salts (a) .. ..	11,248	10,707	9,860	7,442	6,771	6,880
Carbonate .. ..	8,205	8,927	9,324	9,704	9,868	10,026
Caustic potash .. ..	75,575	n.a.	n.a.	n.a.	n.a.	n.a.
Chloride (a) .. ..	126,542	r 147,271	r 165,538	161,250	161,161	163,747
Nitrate .. ..	3,282	3,680	3,339	4,415	4,867	4,945
Sulphate (a) .. ..	r 58,348	r 52,534	r 46,871	49,453	43,945	44,650
Norway—						
Fertilizer salts .. ..	226	258	1,975	285	127	129
Carbonate .. ..	300	308	325	286	283	288
Caustic potash .. ..	1,211	1,196	966	899	555	564
Chloride .. ..	145	168	104	151	107	109
Chloride .. ..	144,809	174,593	131,049	138,482	156,503	159,015
Nitrate .. ..	234	343	136	213	205	208
Sulphate .. ..	10,177	448	57,723	60,589	63,463	64,482

(a) K-O content.

## IMPORTS OF POTASH SALTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Poland—</b>						
Fertilizer salts .. ..	1,519,000	1,673,000	1,768,000	1,867,000	2,180,000	2,215,000
Carbonate .. ..	3,199	2,945	3,246	5,830	5,441	5,528
<b>Portugal—</b>						
Carbonate .. ..	104	264	486	388	325	330
Caustic potash .. ..	280	166	204	182	231	235
Chlorate .. ..	250	221	268	308	310	315
Chloride .. ..	22,723	27,460	23,825	29,149	30,424	30,912
Nitrate .. ..	457	394	427	436	594	604
Sulphate .. ..	15	2,335	2,787	2,936	4,130	4,196
<b>Roumania—</b>						
Fertilizer salts (a) ..	21,700	14,566	10,925	33,168	29,400	29,900
<b>Sweden—</b>						
Fertilizer salts						
do. (40% K <sub>2</sub> O) .. ..	} 449	467	786	456	442	449
do. (other) .. ..						
Carbonate .. ..	1,165	1,026	1,036	1,238	1,103	1,121
Caustic potash .. ..	245	238	85	100	340	346
Chloride .. ..	142,348	178,541	179,820	196,879	195,297	198,431
Nitrate .. ..	1,636	1,213	1,441	1,580	1,689	1,716
Sulphate .. ..	24,714	33,029	37,288	37,725	39,256	39,886
<b>Switzerland—</b>						
Fertilizer salts .. ..	101,781	96,671	103,598	106,759	106,267	107,972
Carbonate .. ..	2,053	2,319	1,771	1,693	1,957	1,989
Caustic potash .. ..	1,098	1,382	1,145	1,698	1,374	1,396
Nitrate .. ..	788	747	574	701	842	856
Sulphate .. ..	691	695	694	947	965	981
<b>U.S.S.R.—</b>						
Caustic potash .. ..	5,800	7,000	6,100	7,086	8,759	8,900
<b>Yugoslavia—</b>						
Fertilizer salts .. ..	299,705	165,745	72,917	23,394	14,595	14,829
Caustic potash .. ..	712	604	995	2,074	2,374	2,412
Chlorate .. ..	522	399	337	295	359	365
Chloride .. ..	n.a.	n.a.	108,598	169,070	276,415	280,851
Sulphate .. ..	5,034	6,940	6,731	3,730	7,289	7,406
<b>Algeria—</b>						
Chloride .. ..	} 14,400	{ 8,904	16,512	37,744	n.a.	n.a.
Sulphate .. ..						
<b>Angola—</b>						
Chloride .. ..	462	394	235	491	428	435
Sulphate .. ..	657	1,168	631	1,047	616	626
<b>Canary Islands—</b>						
Fertilizer salts .. ..	1,229	1,259	1,117	467	1,538	1,563
<b>Central African Republic—</b>						
Potassic fertilizers ..	—	640	204	555	n.a.	n.a.
<b>Congo (Brazza)—</b>						
Fertilizer salts .. ..	6,685	146	2,576	3,914	n.a.	n.a.
<b>Malagasy Republic—</b>						
Fertilizer salts .. ..	2,173	3,040	4,759	5,108	4,274	4,343
<b>Morocco—</b>						
Chloride .. ..	6,284	13,448	18,750	8,569	13,466	13,682
Sulphate .. ..	8,230	14,408	17,078	17,394	17,598	17,880
<b>Reunion—</b>						
Fertilizer salts .. ..	875	692	522	175	n.a.	n.a.
<b>South Africa—</b>						
Fertilizer salts .. ..	68,089	159,504	135,292	124,219	92,176	93,655
Caustic potash .. ..	592	506	624	538	623	633
Other compounds .. ..	65,577	52,363	33,804	27,352	66,282	67,346
<b>Sudan—</b>						
Caustic potash .. ..	21	1	177	621	151	153

 (a) K<sub>2</sub>O content.

## IMPORTS OF POTASH SALTS (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Tunisia—						
Fertilizer salts .. ..	3,491	3,424	3,307	6,728	4,349	4,419
Caustic potash .. ..	36	20	8	—	n.a.	n.a.
Costa Rica—						
Fertilizer salts .. ..	13,293	18,731	22,589	24,737	21,063	21,401
French West Indies—						
Guadeloupe—						
Fertilizer salts .. ..	122	84	113	145	n.a.	n.a.
Martinique—						
Fertilizer salts .. ..	3,296	3,773	3,110	1,765	n.a.	n.a.
Guatemala—						
Fertilizer salts .. ..	860	901	238	101	202	205
Honduras—						
Fertilizer salts .. ..	7,726	9,710	6,055	4,824	5,823	5,916
Mexico—						
Carbonate .. ..	760	753	1,226	1,705	886	900
Chloride .. ..	40,131	37,408	49,051	51,181	48,953	49,739
Caustic potash .. ..	945	1,047	2,127	765	810	823
Sulphate .. ..	7,173	99	10,498	15,349	23,107	23,478
Nicaragua—						
Fertilizer salts .. ..	2,591	1,456	2,381	16,625	864	878
Panama Republic—						
Fertilizer salts .. ..	161	597	n.a.	n.a.	n.a.	n.a.
Salvador—						
Fertilizer salts .. ..	3,943	3,131	1,795	3,241	3,508	3,564
United States—						
Carbonate .. ..	1,279	4,073	393	—	n.a.	n.a.
Caustic potash .. ..	1,945	1,006	1,133	1,628	2,511	2,551
Chlorates .. ..	572	347	416	277	586	596
Chloride .. ..	2,131,447	2,420,179	3,175,555	3,418,952	3,800,364	3,861,349
Cyanide .. ..	1,040	915	803	924	827	840
Nitrate .. ..	24,617	13,799	14,287	10,102	12,974	13,182
Potassium-sodium nitrate mixtures .. ..	35,804	40,022	25,403	32,665	50,142	50,947
Sulphate .. ..	51,631	54,424	38,900	44,042	67,660	68,746
Argentina—						
Carbonate .. ..	493	589	643	440	768	780
Caustic potash .. ..	855	1,268	743	764	1,162	1,181
Chlorate .. ..	386	573	493	738	685	696
Nitrate .. ..	—	57	6	10	140	142
Sulphate .. ..	344	1,407	2,751	2,448	3,169	3,220
Brazil—						
Caustic potash .. ..	1,388	976	846	1,036	2,215	2,251
Nitrate .. ..	739	442	353	n.a.	197	200
Nitrate of potash and soda .. ..	18,411	9,562	6,240	16,895	7,541	7,662
Chloride .. ..	141,816	218,005	291,753	312,853	483,933	491,699
Sulphate .. ..	8,238	5,006	10,012	12,501	16,023	16,280
Carbonate .. ..	1,532	1,417	1,857	2,296	2,484	2,524
Chlorate .. ..	—	9	—	31	2	2
Chile—						
Caustic potash .. ..	n.a.	128	93	n.a.	n.a.	n.a.
Chlorate .. ..	n.a.	85	60	n.a.	n.a.	n.a.
Chloride .. ..	n.a.	21,369	21,973	n.a.	n.a.	n.a.
Sulphate .. ..	n.a.	5,660	2,253	n.a.	n.a.	n.a.
Colombia—						
Chlorate .. ..	265	376	289	n.a.	n.a.	n.a.
Chloride .. ..	30,307	41,816	51,891	n.a.	n.a.	n.a.
Nitrate .. ..	498	208	192	n.a.	n.a.	n.a.
Sulphate .. ..	17,465	4,332	6,439	n.a.	n.a.	n.a.
Other fertilizer salts .. ..	196	93	144	n.a.	n.a.	n.a.

## IMPORTS OF POTASH SALTS (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Peru—</b>						
Fertilizer salts .. ..	2,379	7,554	3,662	4,493	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	141	200	163	110	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. ..	45	55	51	73	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	2,036	70	3,182	3,775	<i>n.a.</i>	<i>n.a.</i>
Caustic potash .. ..	31	20	41	25	<i>n.a.</i>	<i>n.a.</i>
<b>Uruguay—</b>						
Nitrate .. ..	11	31	15	5	19	19
Caustic potash .. ..	153	114	153	50	116	118
<b>Venezuela—</b>						
Carbonate .. ..	65	50	61	34	<i>n.a.</i>	<i>n.a.</i>
Chlorate .. ..	260	258	157	218	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	10,629	12,303	17,920	11,899	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	414	3,562	1,961	1,800	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	4,948	9,159	3,941	5,417	<i>n.a.</i>	<i>n.a.</i>
<b>Burma—</b>						
Fertilizer salts .. ..	—	246	79	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Formosa—</b>						
Fertilizer salts .. ..	31,259	93,561	109,414	132,539	116,126	117,989
<b>Iran (a)—</b>						
Fertilizer salts .. ..	—	—	295	2,950	<i>n.a.</i>	<i>n.a.</i>
<b>Japan—</b>						
Fertilizer salts .. ..	15,000	23,559	22,307	23,377	24,761	25,158
Chloride .. ..	1,068,942	1,116,138	1,213,355	1,234,121	1,210,795	1,230,225
Sulphate .. ..	82,021	57,328	65,586	86,769	76,242	77,465
<b>Jordan—</b>						
Fertilizer salts .. ..	6,926	1,814	862	844	4,288	4,357
<b>Korea (South)—</b>						
Chloride .. ..	20,612	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other fertilizer salts .. ..	310,379	28,448	67,381	220,373	82,152	83,470
<b>Lebanon—</b>						
Fertilizer salts .. ..	5,554	7,461	7,892	5,422	8,107	8,237
<b>Philippine Republic—</b>						
Sulphate .. ..	<i>n.a.</i>	8,641	4,680	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other fertilizer salts .. ..	<i>n.a.</i>	58,488	50,606	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Thailand—</b>						
Chlorate .. ..	455	63	245	314	399	405
Chloride .. ..	40	498	485	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	1,198	976	1,334	1,315	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	250	984	837	2,362	886	900
<b>Turkey—</b>						
Carbonate .. ..	1,583	1,903	2,148	922	<i>n.a.</i>	<i>n.a.</i>
Caustic potash .. ..	429	1,742	708	272	<i>n.a.</i>	<i>n.a.</i>
Chlorates .. ..	442	150	346	511	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	587	322	316	167	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	3,122	2,155	540	1,277	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.

**PYRITES**  
**PRODUCTION OF PYRITES**  
 (see also Sulphur)  
 (including Cupreous Pyrites)

Producing Country	Long tons					Tonnes					
	1966	1967	1968	1969	1970	Estimated Sulphur Content					
						1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>											
Canada (c)	291,923	337,447	280,533	288,779	290,804	144,911	162,837	139,104	142,732	163,300	165,900
Cyprus (a)	1,012,140	1,039,277	1,012,744	907,246	866,796	486,000	493,000	486,000	435,000	414,000	421,000
India	—	—	15,187	40,980	25,983	—	—	n.a.	n.a.	n.a.	n.a.
Australia (b)	245,998	252,748	r 165,265	158,389	185,354	107,157	111,202	r 71,800	70,700	81,000	82,400
TOTAL	1,600,000	1,700,000	1,500,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
<b>OTHER COUNTRIES</b>											
Bulgaria (b)	144,170	161,500	161,500	170,000	170,000	61,000	68,000	68,000	71,000	71,000	72,000
Czechoslovakia (b)	346,000	370,000	374,000	394,000	337,000	133,000	143,000	146,000	154,000	131,000	133,000
Finland (b)	500,000	700,000	760,000	800,000	948,000	260,000	340,000	370,000	370,000	489,000	497,000
France (d)	86,685	84,032	80,505	83,854	83,798	35,676	34,661	33,100	34,400	35,200	35,700
Germany (Federal)	444,015	548,309	607,580	631,522	563,542	191,691	217,066	283,010	246,000	230,000	234,000
Germany (East)	n.a.	n.a.	n.a.	n.a.	n.a.	53,000	53,000	57,000	57,000	57,000	57,000
Greece	157,624	162,353	207,898	241,651	266,071	73,000	77,000	97,000	111,000	115,000	117,000
Italy	1,283,846	1,388,759	1,384,239	1,451,396	1,494,450	590,000	613,000	609,000	639,000	657,000	668,000
Norway	666,798	626,805	681,647	754,500	735,200	297,000	282,179	309,373	346,000	339,000	344,000
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	80,000	30,000	n.a.	n.a.
Portugal	549,043	519,683	552,421	522,737	468,309	252,560	239,054	249,694	231,572	209,300	212,700
Roumania	n.a.	n.a.	n.a.	354,000	794,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Saleable.

(b) Pyrite concentrate.

(c) Producers shipments of pyrites produced as a by-product in the treatment of copper and copper-zinc ores.

(d) In addition the sulphur content of mispickel and auriferous pyrites was as follows (long tons): 1966—9,182; 1967—8,635; 1968—7,015; 1969—11,309; 1970—n.a.

PRODUCTION OF PYRITES (cont.)

Producing Country	Long tons Tonnes					Estimated Sulphur Content					Long tons Tonnes	
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1969	1970
<b>OTHER COUNTRIES</b>												
<i>(cont.)</i>												
Spain ..	2,432,886	2,290,760	2,406,605	2,433,844	2,736,072	1,146,000	1,086,000	1,144,000	1,131,000	1,254,000	1,274,000	
Sweden ..	426,747	474,900	467,000	487,380	575,200	218,106	242,210	236,000	246,420	286,300	290,900	
U.S.S.R. (c) ..	3,250,000	3,450,000	3,450,000	3,450,000	4,000,000	1,720,000	1,820,000	1,821,000	1,821,000	2,067,000	2,100,000	
Yugoslavia (a) ..	372,000	418,000	270,000	268,000	355,000	149,000	175,000	113,000	113,000	146,000	149,000	
Algeria ..	40,729	33,836	45,446	41,099	32,505	19,000	15,000	21,000	19,000	15,000	15,000	
Morocco ..	14,661	—	—	—	—	4,000	—	—	—	—	—	
South Africa ..	473,587	854,943	763,108	824,107	1,215,702	179,000	400,000	267,000	330,000	478,000	486,000	
United States (b) ..	872,414	860,909	872,000	860,000	844,000	355,512	355,033	362,000	355,000	344,000	350,000	
China (c) ..	1,480,000	1,480,000	1,480,000	1,800,000	2,000,000	665,000	665,000	669,000	803,000	900,000	914,000	
Formosa ..	41,342	38,085	38,365	37,684	40,000	15,500	14,300	14,400	14,100	15,000	15,000	
Japan (d) ..	3,062,000	2,968,129	2,950,000	2,919,000	2,750,000	1,409,000	1,363,527	1,357,000	1,350,000	1,240,000	1,260,000	
Korea (South) ..	21,834	3,571	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Korea (North) (c) ..	445,000	492,000	492,000	492,000	500,000	177,000	190,000	197,000	197,000	197,000	200,000	
Philippine Republic ..	113,000	143,910	179,281	198,000	274,000	51,000	65,000	85,000	94,000	128,000	130,000	
Turkey ..	118,717	123,036	134,656	127,793	91,000	58,000	60,000	62,000	59,000	41,000	42,000	
TOTAL*	18,000,000	18,600,000	18,900,000	19,600,000	21,400,000	9,000,000	9,500,000	9,600,000	9,600,000	10,100,000	10,300,000	
WORLD'S TOTAL*	20,000,000	20,300,000	20,400,000	20,900,000	22,800,000	9,000,000	9,500,000	9,600,000	9,600,000	10,100,000	10,300,000	

\*Including an estimate for pyrites produced in Cuba but excluding pyrites known to have been produced in Brazil.

(a) Concentrates.

(b) Including by-product pyrites.

(c) United States Bureau of Mines' estimate.

(d) Including pyrrhotite.

(e) Copper pyrites excluded.

EXPORTS OF PYRITES

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada (a) .. ..	(£325,373)	(£360,181)	(£407,000)	(£426,000)	(£489,000)	(£489,000)
Cyprus—						
Iron pyrites .. ..	735,022	710,260	798,900	831,755	805,183	818,107
Cupreous pyrites ..	161,653	183,673	148,021	102,971	94,532	96,049
<b>OTHER COUNTRIES</b>						
Austria .. ..	—	—	—	2,251	—	—
Belgium-Luxemburg						
E.U. .. ..	3	—	—	19	1,433	1,456
Finland—						
Concentrate .. ..	50,421	30,816	44,916	89,774	17,240	17,517
Germany (Federal) ..	262	173	144	224	267	271
Greece .. ..	5,935	4,260	3,973	4,064	4,232	4,300
Italy—						
Iron pyrites .. ..	} 51,475	51,262	47,710	39,635	19,080	19,386
Cupreous pyrites ..						
Norway .. ..	546,023	476,711	513,954	495,846	512,574	520,799
Poland .. ..	38,926	53,703	36,470	17,970	38,818	39,441
Portugal—						
Iron pyrites .. ..	268,218	240,320	265,358	246,731	224,890	228,499
Spain—						
Iron pyrites .. ..	688,304	575,282	607,321	729,079	592,375	601,881
Cupreous pyrites ..	125,609	114,741	212,549	279,173	278,694	283,166
Sweden .. ..	40,674	38,882	40,965	40,954	50,933	51,750
Yugoslavia .. ..	187,147	94,883	105,040	107,600	50,719	51,533
Algeria .. ..	n.a.	12,598	n.a.	n.a.	n.a.	n.a.
Turkey .. ..	89,740	17,962	9,596	87,187	n.a.	n.a.

(a) Sulphur in ores (pyrite).



IMPORTS OF PYRITES

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. ..	259,233	241,750	216,333	217,220	167,221	169,905
Irish Republic .. ..	1,950	1,900	1,085	1,236	560	569
<b>OTHER COUNTRIES</b>						
Austria .. ..	26,047	24,518	25,542	25,812	18,817	19,119
Belgium-Luxemburg .. ..						
E.U. .. ..	259,844	271,778	347,142	386,935	401,284	407,724
Czechoslovakia (a) .. ..	48,000	36,000	31,000	32,000	75,000	76,000
Denmark .. ..	182,105	111,573	116,536	144,455	162,783	165,395
France .. ..	333,629	310,827	310,671	321,100	314,163	319,204
Germany (Federal) .. ..	1,417,052	1,414,242	1,861,694	1,774,733	1,604,225	1,629,968
Germany (East) (a) .. ..	106,102	107,170	107,704	106,765	104,899	106,582
Hungary .. ..	152,000	173,220	146,047	164,252	173,482	176,266
Italy .. ..	943,346	1,186,342	1,087,194	843,185	832,607	845,968
Netherlands .. ..	265,572	88,820	120,663	95,182	108,779	110,525
Sweden .. ..	122,769	122,489	62,905	111,094	115,873	117,733
Switzerland .. ..	45,583	45,260	41,550	31,848	17,243	17,520
Egypt .. ..	91,874	73,897	45,921	58,937	46,764	47,514
South Africa .. ..	7,487	7,674	8,441	9,244	<i>n.a.</i>	<i>n.a.</i>
Tunisia .. ..	7,857	7,643	7,836	10,485	7,352	7,470
Japan .. ..	261,370	77,305	<i>n.a.</i>	54,116	180,978	183,882

(a) S content.

## RARE EARTH AND THORIUM MINERALS

### PRODUCTION OF RARE EARTH AND THORIUM MINERALS

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria—						
Monazite .. ..	35	109	7	12	13	13
Canada—						
Thorium oxide ..	39	52	62	13	—	—
Ceylon—						
Monazite .. ..	35	20	41	55	16	16
India—						
Monazite (d) .. ..	2,300	(e) 2,500	(e) 2,500	3,437	3,393	3,447
Malaysia (West) (a)—						
Monazite .. ..	1,022	1,203	2,172	1,580	1,631	1,657
Australia (b)—						
High-grade concentrates	1,836	2,163	1,849	3,420	4,038	4,103
<b>OTHER COUNTRIES</b>						
Congo (Kinshasa)—						
Monazite .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	175	140	143
Malagasy Republic—						
Monazite .. ..	837	366	—	—	2	2
Uranothorianite (c) ..	413	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
Monazite .. ..	734	1,062	1,664	1,966	(e) 2,000	(e) 2,000
Indonesia—						
Monazite .. ..	<i>n.a.</i>	5	(e) 25	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Korea (South)—						
Monazite .. ..	—	12	—	—	<i>n.a.</i>	<i>n.a.</i>

Rare earth and thorium minerals are also produced in the United States.

(a) Exports.

(b) Monazite content. Estimated.

(c) Containing an average of 60% Th.

(d) Years ended March 31 of year following that stated. Source United States Bureau of Mines.

(e) Estimated.

## EXPORTS OF RARE EARTH MINERALS, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Ceylon—						
Monazite .. ..	74	74	<i>n.a.</i>	<i>n.a.</i>	68	69
Malaysia (West)—						
Monazite .. ..	1,022	1,203	2,172	1,580	1,631	1,657
Australia—						
Monazite .. ..	2,092	1,858	2,575	2,652	4,941	5,020
<b>OTHER COUNTRIES</b>						
France—						
Salts of rare earth minerals .. ..	450	426	554	725	838	852
Germany (Federal)—						
Compounds of rare earth minerals .. ..	378	395	387	358	140	142
Malagasy Republic—						
Monazite .. ..	898	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Uranothorianite ..	353	302	55	—	<i>n.a.</i>	<i>n.a.</i>
United States—						
Thorium ore, concen- trates and compounds	—	—	1	1	—	—
Brazil—						
Cerium chloride ..	1,573	1,376	1,779	1,311	295	300

## IMPORTS OF RARE EARTH MINERALS, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Concentrates (b) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,392	1,414
<b>OTHER COUNTRIES</b>						
France—						
Rare earth minerals ..	1,376	1,115	69	525	2,402	2,441
Salts of rare earth minerals .. ..	104	359	304	171	744	756
Germany (Federal)—						
Salts of rare earth minerals (a) .. ..	422	476	402	385	472	480
United States—						
Monazite sand and other thorium ore .. ..	2,181	1,867	3,899	3,755	3,079	3,128

Rare earth minerals are also imported into Canada but statistics of imports are not recorded in the trade returns.

(a) Including uranium salts.

(b) Containing 40-95 per cent. rare earth oxides or equivalent.

**SALT**  
**PRODUCTION OF SALT**

Producing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Rock-salt .. ..	1,030,000	692,000	1,088,000	1,515,000	1,729,000	1,757,000
Brine-salt .. ..	1,455,000	1,391,000	1,495,000	1,580,000	1,706,000	1,733,000
Salt in brine (a) ..	4,732,000	4,918,000	5,050,000	5,494,000	5,608,000	5,698,000
Malta—						
Sea-salt .. ..	2,044	2,617	2,418	1,704	3,117	3,167
Ghana .. ..	35,000	30,000	29,000	35,356	15,868	16,123
Kenya .. ..	53,333	48,032	60,036	41,617	38,651	39,271
Mauritius—						
Sea-salt .. ..	4,100	4,100	4,100	4,000	4,000	4,000
Nigeria .. ..	834	802	818	2,161	<i>n.a.</i>	<i>n.a.</i>
Tanzania .. ..	41,340	35,534	29,805	33,552	41,282	41,944
Uganda .. ..	5,461	<i>n.a.</i>	4,000	6,000	3,000	3,000
Canada—						
Rock-salt .. ..	2,034,304	2,698,317	} 4,343,146	4,158,718	4,510,714	4,583,111
Other salt (b) .. ..	2,059,166	2,035,573				
West Indies—						
Sea-salt—						
Bahamas (c) .. ..	520,000	711,250	629,536	450,538	755,850	767,981
St. Kitts (c) .. ..	5,505	2,711	—	—	<i>n.a.</i>	<i>n.a.</i>
Virgin Islands (c) ..	2	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Turks and Caicos Islands .. ..	5,500	4,193	2,200	2,411	2,400	2,439
Ceylon .. ..	63,467	74,610	96,842	111,907	63,353	64,370
Cyprus .. ..	3,949	6,581	4,740	5,778	6,889	6,999
India—						
Rock-salt .. ..	3,900	3,200	2,900	3,400	3,954	4,017
Other salt .. ..	4,433,100	4,395,800	4,957,100	5,500,000	5,500,000	5,588,000
Goa .. ..	13,089	18,010	13,385	11,023	<i>n.a.</i>	<i>n.a.</i>
Pakistan—						
Rock-salt .. ..	259,767	248,348	329,023	337,481	314,549	319,597
Sea-salt .. ..	207,993	436,570	551,639	552,635	440,315	447,381
Australia .. ..	644,817	703,157	899,704	1,653,478	3,022,449	3,070,959
New Zealand .. ..	35,450	55,200	55,000	48,518	51,959	52,793
<b>TOTAL .. ..</b>	<b>17,700,000</b>	<b>18,600,000</b>	<b>19,700,000</b>	<b>21,600,000</b>	<b>23,800,000</b>	<b>24,200,000</b>
<b>OTHER COUNTRIES</b>						
Austria—						
Rock-salt .. ..	802	884	948	911	925	940
Evaporated salt .. ..	182,525	187,957	197,637	221,381	261,069	265,258
Bulgaria .. ..	111,000	123,000	113,000	118,000	118,000	120,000
Czechoslovakia .. ..	194,000	199,000	200,000	204,000	299,597	304,405
France—						
Rock-salt (incl. refined)	927,111	895,312	971,500	1,139,700	1,203,000	1,222,000
Salt in brine .. ..	2,420,849	2,518,392	2,416,800	2,624,900	2,937,000	2,984,000
Sea-salt .. ..	1,044,300	1,516,110	983,600	949,800	1,275,000	1,296,000
Germany (Federal)—						
Rock-salt .. ..	5,041,156	5,084,048	6,028,681	6,674,018	8,193,361	8,324,840
Brine-salt .. ..	564,097	580,818	643,909	683,767	690,092	701,166
Salt in brine .. ..	1,189,355	1,133,795	1,254,267	1,361,297	1,398,520	1,420,962

(a) Used for purposes other than salt-making.

(b) Including salt in brine.

(c) Exports.

## PRODUCTION OF SALT (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (East) .. .. .	(a)2,000,000	1,804,000	1,939,000	(a)2,000,000	2,097,000	2,130,000
Greece—						
Sea-salt .. .. .	89,944	95,236	94,679	74,100	(a) 80,300	(a) 81,600
Italy—						
Rock-salt and brine-salt	2,083,350	2,536,348	2,585,000	2,750,000	2,826,000	2,871,000
Netherlands (brine-salt)	1,828,000	1,894,600	2,376,000	2,627,000	2,826,000	2,871,000
Poland—						
Rock-salt .. .. .	750,000	817,000	954,000	1,148,000	1,205,000	1,224,000
Brine-salt .. .. .	287,000	289,000	286,000	} 1,625,000	1,652,000	1,679,000
Other salt .. .. .	1,334,000	1,342,000	1,352,000			
Portugal—						
Rock-salt .. .. .	95,991	110,929	148,919	163,411	191,418	194,490
Sea-salt .. .. .	252,768	315,566	259,157	139,942	203,909	207,181
Roumania .. .. .	2,014,000	2,026,000	2,331,000	2,682,000	2,817,000	2,862,000
Spain—						
Rock-salt .. .. .	795,667	833,441	896,955	1,059,322	a 1,071,400	a 1,088,600
Sea-salt .. .. .	913,681	887,278	894,353	758,962	(a) 786,000	(a) 798,000
Other salt .. .. .	16,977	22,462	23,825	14,302	n.a.	n.a.
Switzerland .. .. .	187,057	212,954	251,033	262,382	328,570	333,845
U.S.S.R. .. .. .	9,153,000	10,432,000	10,826,000	11,811,000	a12,768,000	a12,973,000
Yugoslavia—						
Sea-salt .. .. .	34,000	40,000	40,407	} 208,652	206,250	209,560
Evaporated salt .. .. .	128,000	126,000	124,994			
Algeria—						
Brine-salt and sea-salt ..	n.a.	(a) 115,000	(a) 118,000	147,000	(a) 98,000	(a) 99,000
Angola .. .. .	60,298	76,460	71,351	78,915	86,357	87,743
Cape Verde Islands .. .. .	21,000	20,000	31,000	27,000	n.a.	n.a.
Egypt .. .. .	617,064	574,363	611,930	378,700	491,000	499,000
Ethiopia (c) .. .. .	(a) 185,000	202,000	229,000	234,000	256,000	260,000
Libya (sea-salt) .. .. .	49,000	(a) 16,000	(a) 16,000	(a) 16,000	(a) 16,000	(a) 16,000
Morocco .. .. .	38,186	20,029	39,900	65,666	56,174	57,075
Mozambique—						
Rock-salt .. .. .	} 25,589	37,340	18,241	9,394	28,288	28,742
Other salt .. .. .						
Senegal .. .. .	59,788	69,888	82,238	78,600	115,889	117,749
South Africa .. .. .	309,938	311,671	336,262	371,967	413,426	420,060
South West Africa—						
Rock-salt .. .. .	4,853	n.a.	n.a.	n.a.	n.a.	n.a.
Other salt .. .. .	57,573	n.a.	(a) 108,000	(a) 108,000	(a) 108,000	(a) 110,000
Sudan .. .. .	42,000	(a) 39,000	50,000	50,000	52,000	53,000
Tunisia (sea-salt) .. .. .	322,838	315,000	349,000	279,000	296,000	301,000
Costa Rica (b) .. .. .	10,000	12,000	11,000	9,000	10,000	10,000
Dominican Republic—						
Rock-salt .. .. .	19,322	905	1,673	n.a.	—	—
Sea-salt .. .. .	24,252	15,517	27,678	25,145	37,357	37,956
Guatemala (sea-salt) .. .. .	19,330	14,366	13,000	12,036	12,036	12,229
Haiti (b) .. .. .	10,000	10,000	10,000	n.a.	n.a.	n.a.
Honduras .. .. .	(b) 10,000	23,113	22,149	27,362	(a) 27,000	(a) 27,000
Mexico .. .. .	2,360,000	3,278,000	3,541,000	3,828,000	4,087,000	4,153,000
Nicaragua (sea-salt) .. .. .	39,490	40,169	65,990	70,666	109,936	111,700
Panama (sea-salt) .. .. .	9,000	10,500	8,000	11,000	n.a.	n.a.
Salvador (sea-salt) .. .. .	22,758	24,113	23,847	26,793	31,000	31,000

(a) United States Bureau of Mines' estimate.

(b) Estimated.

(c) Years ended September 10 of year stated.

PRODUCTION OF SALT (cont.)

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (e)—						
Rock-salt .. .. .	9,000,000	10,412,000	11,126,000	11,962,000	12,652,000	12,855,000
Salt in brine .. .. .	19,061,000	19,639,000	20,796,000	22,487,000	23,411,000	23,787,000
Evaporated salt.. .. .	4,496,000	4,722,000	4,930,000	5,056,000	4,835,000	4,913,000
Argentina—						
Rock-salt .. .. .	3,690	2,739	1,758	1,455	} b 500,000	b 500,000
Other salt .. .. .	875,915	841,327	726,752	462,932		
Brazil (sea-salt) .. .. .	1,417,971	1,023,280	1,425,817	1,603,771	1,797,330	1,826,172
Chile .. .. .	199,480	411,191	817,407	1,323,096	508,000	516,000
Colombia—						
Rock-salt .. .. .	278,752	303,553	317,348	340,285	532,335	540,873
Sea-salt .. .. .	119,123	156,612	187,632	296,869	230,280	233,974
Ecuador (sea-salt) .. .. .	34,000	n.a.	n.a.	n.a.	n.a.	n.a.
Peru—						
Rock-salt .. .. .	8,245	10,327	10,178	7,065	} 94,000	96,000
Sea-salt .. .. .	91,856	122,132	87,264	72,558		
Brine-salt .. .. .	9,842	14,821	17,045	11,711		
Venezuela (sea-salt) .. .. .	146,407	168,266	124,000	168,000	262,000	266,000
Afghanistan (d) .. .. .	37,000	30,000	36,900	36,600	(a) 36,000	(a) 37,000
Burma—						
Sea-salt .. .. .	} a)(b)116,000	166,000	130,000	180,000	160,000	160,000
Brine-salt .. .. .						
China (a) .. .. .	13,000,000	13,000,000	15,000,000	15,000,000	16,000,000	16,000,000
Formosa (sea-salt) .. .. .	404,596	509,330	306,530	376,864	527,000	535,000
Indonesia .. .. .	211,482	a)(b)296,000	a)(b)79,000	a)(b)177,000	a)(b)178,000	a)(b)181,000
Iran (d) .. .. .	221,000	254,000	271,000	305,000	344,000	350,000
Iraq (c) .. .. .	a)(b)54,000	a)(b)59,000	r 42,000	49,000	45,000	46,000
Israel .. .. .	56,727	56,179	64,450	65,999	65,253	66,300
Japan—						
Government-licensed plants .. .. .	837,000	958,000	952,000	966,000	946,000	961,000
Jordan (brine-salt) .. .. .	18,435	13,982	17,217	19,109	15,184	15,428
Korea (North) .. .. .	a)(b)500,000	a)(b)500,000	a)(b)500,000	a)(b)540,000	a)(b)540,000	a)(b)549,000
Korea (South) .. .. .	387,281	602,364	552,000	284,000	399,000	405,000
Lebanon (sea-salt) (a) .. .. .	24,000	25,000	25,000	25,000	25,000	25,000
Philippine Republic—						
Sea-salt .. .. .	140,000	116,000	189,000	227,000	207,000	210,000
Southern Yemen .. .. .	71,000	59,000	77,000	(a) 60,000	(a) 50,000	(a) 50,000
Syria .. .. .	a)(b)20,000	a)(b)20,000	a)(b)20,000	a)(b)21,000	a)(b)21,000	a)(b)21,000
Thailand .. .. .	a)(b)200,000	a)(b)110,000	a)(b)150,000	a)(b)200,000	a)(b)200,000	a)(b)200,000
Turkey—						
Rock-salt .. .. .	34,861	35,809	} 560,000	556,000	600,000	600,000
Lake and spring salt .. .. .	201,323	172,983				
Sea-salt .. .. .	249,396	418,451				
Vietnam (North) .. .. .	a)(b)150,000	a)(b)150,000	a)(b)150,000	a)(b)150,000	a)(b)150,000	a)(b)150,000
Vietnam (South) .. .. .	85,509	154,824	155,780	116,450	a)(b)116,000	a)(b)118,000
Yemen .. .. .	n.a.	a)(b)98,000	a)(b)80,000	a)(b)107,000	a)(b)98,000	a)(b)99,000
<b>TOTAL*</b> .. .. .	<b>93,000,000</b>	<b>97,000,000</b>	<b>104,000,000</b>	<b>110,000,000</b>	<b>117,000,000</b>	<b>119,000,000</b>
<b>WORLD'S TOTAL*</b> .. .. .	<b>111,000,000</b>	<b>115,000,000</b>	<b>124,000,000</b>	<b>131,000,000</b>	<b>141,000,000</b>	<b>143,000,000</b>

\*Salt is known to have been produced in many countries for which statistics are not available. An allowance has been made for these in the total.

(a) Estimated.

(b) United States Bureau of Mines.

(c) Years ended March 31 of year following that stated.

(d) Years ended March 20 of year following that stated.

(e) Sold or used by producers.

EXPORTS OF SALT

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	447,101	414,708	475,356	510,476	573,415	582,618
Kenya .. .. .	162	762	1,555	202	668	679
Tanzania .. .. .	12,294	10,914	10,609	12,684	8,410	8,545
Uganda .. .. .	1,144	1,615	1,939	1,473	2,095	2,129
Bahamas .. .. .	520,000	711,250	629,536	450,538	755,850	767,981
St. Kitts .. .. .	5,505	2,711	—	—	n.a.	n.a.
Virgin Islands ..	2	—	—	—	n.a.	n.a.
Turks and Caicos Islands	5,580	3,770	2,504	3,350	2,650	2,693
India (b) .. .. .	234,483	281,568	291,609	264,631	102,696	104,344
Malaysia (West) ..	208	1,222	223	445	444	451
Pakistan .. .. .	n.a.	(a) 124,194	(a) 83,378	(a) 125,890	(a) 101,262	(a) 102,887
Singapore .. .. .	4,051	5,675	6,543	9,367	6,491	6,595
Australia (a)—						
Refined salt .. ..	—	2,129	1,806	608	922	937
Other salt .. .. .	101,313	90,761	164,352	294,236	1,365,848	1,387,770
<b>OTHER COUNTRIES</b>						
Austria .. .. .	202	4	35	14	10	10
Belgium-Luxemburg						
E.U. .. .. .	4,183	3,807	6,453	6,686	6,971	7,083
Denmark .. .. .	13,223	12,803	10,942	3,123	5,865	5,959
France .. .. .	115,816	92,336	82,182	132,979	279,345	283,828
Germany (Federal) ..	930,263	997,547	1,150,775	1,217,214	1,570,198	1,595,395
Italy .. .. .	18,403	21,075	20,102	28,915	223,000	226,579
Netherlands	1,039,909	1,133,681	1,399,944	1,603,306	2,032,565	2,065,182
Norway—						
Common salt .. ..	4,125	2,946	3,630	3,069	1,690	1,717
Poland .. .. .	169,517	141,180	176,911	196,986	205,955	209,260
Portugal .. .. .	21	300	60	239	4,902	4,981
Roumania .. .. .	423,000	390,238	477,044	516,000	594,200	603,700
Spain .. .. .	309,404	294,414	360,844	268,968	173,927	176,718
Sweden .. .. .	300	26	218	184	336	341
Switzerland .. .. .	2,046	7	7	1,167	1,433	1,456
U.S.S.R. .. .. .	191,900	265,834	271,000	218,000	289,000	293,600
Algeria .. .. .	n.a.	44,461	39,146	35,182	n.a.	n.a.
Angola .. .. .	33,971	30,082	19,242	20,299	32,783	33,309
Canary Islands (c) ..	4,601	2,157	5,221	4,805	2,236	2,272
Cape Verde Islands ..	31,341	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt .. .. .	270,000	114,199	47,960	40,431	47,507	48,269
Ethiopia .. .. .	162,909	154,009	157,005	175,485	139,025	141,256
Malagasy Republic ..	2,083	1,293	2,600	1,839	5,509	5,597
Mozambique .. .. .	8,783	3,436	3,182	5,608	4,873	4,951
Morocco .. .. .	—	1	—	105	2,074	2,107
Senegal .. .. .	7,843	18,122	21,962	n.a.	105,037	106,723
South Africa .. .. .	33,072	27,576	35,140	28,268	28,926	29,390
South West Africa—						
Rock-salt .. .. .	2,461	n.a.	n.a.	n.a.	n.a.	n.a.
Coarse salt .. .. .	51,909	n.a.	n.a.	n.a.	n.a.	n.a.
Other salt .. .. .	2,166	n.a.	n.a.	n.a.	n.a.	n.a.
Sudan .. .. .	1,684	213	411	431	633	643
Tunisia .. .. .	271,311	274,348	317,800	260,955	230,560	234,260
Honduras .. .. .	6,372	6,397	6,508	4,579	3,920	3,983
Mexico .. .. .	836,137	2,716,607	2,945,517	3,525,749	3,353,030	3,406,836

(a) Years ended June 30 of that stated.

(b) Years ending March 31 following that stated.

(c) Excluding exports to Spain and other Spanish dependencies.



EXPORTS OF SALT (cont.)

Exporting Country and Description						Long tons	Tonnes
	1966	1967	1968	1969	1970	1970	1970
<b>OTHER COUNTRIES</b>							
<i>(cont.)</i>							
Salvador .. .. .	4,737	8,428	8,980	9,704	1,137	1,155	
United States .. .. .	591,563	605,115	649,753	639,502	377,577	383,636	
Argentina .. .. .	58,937	48,244	47,158	61,649	82,814	84,143	
Peru .. .. .	179	236	218	497	<i>n.a.</i>	<i>n.a.</i>	
Formosa .. .. .	128,014	16,554	11,000	7,690	<i>n.a.</i>	<i>n.a.</i>	
Iran (a) .. .. .	2,015	3,148	4,644	2,677	4,098	4,164	
Japan .. .. .	4,732	7,669	392	1,284	339	344	
Southern Yemen .. .. .	74,237	71,464	88,284	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Thailand.. .. .	83,517	74,771	95,097	109,088	91,392	92,859	
Turkey .. .. .	51,040	6,693	<i>n.a.</i>	32,912	<i>n.a.</i>	<i>n.a.</i>	

(a) Years ended March 20 of year following that stated.

IMPORTS OF SALT

Importing Country and Description	Long tons					Tonne
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Salt for use of fisheries..	54,290	29,031	} 32,895	{ 44,906	91,320	92,786
Other salt .. .. .	6,505	7,183			8,489	47,031
Channel Islands .. .. .	420	778	1,015	362	385	391
Malta—						
Refined salt .. .. .	(£5,972)	(£5,491)	(£9,472)	(£10,774)	(£14,791)	(£14,791)
Other salt .. .. .	420	56	—	353	241	245
Gambia .. .. .	120	35	64	41	37	38
Ghana .. .. .	706	137	425	1,602	2,530	2,571
Kenya .. .. .	4,930	4,966	6,630	4,269	2,366	2,404
Malawi .. .. .	9,131	9,125	10,863	10,279	10,008	10,168
Mauritius .. .. .	56	99	154	150	197	200
Nigeria .. .. .	123,557	124,029	127,782	137,939	141,369	143,638
Seychelles .. .. .	233	233	403	<i>n.a.</i>	778	790
Sierra Leone .. .. .	10,788	9,291	8,847	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tanzania .. .. .	4,368	3,138	5,695	19,799	10,256	10,421
Uganda .. .. .	22,165	21,234	35,878	19,135	21,385	21,728
Zambia .. .. .	12,166	11,586	13,368	44,630	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Salt for use of fisheries..	} 454,954	506,261	575,137	621,105	551,804	560,659
Refined salt .. .. .						
Other salt .. .. .						
Antigua .. .. .	256	764	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Barbados .. .. .	6,992	1,946	1,906	1,930	2,282	2,319
Bermuda .. .. .	166	180	164	156	<i>n.a.</i>	<i>n.a.</i>
British Honduras .. .. .	582	715	673	589	649	659
Dominica .. .. .	317	422	361	346	<i>n.a.</i>	<i>n.a.</i>
Grenada .. .. .	567	618	636	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Jamaica—						
Rock-salt .. .. .	63	124	182	3,714	<i>n.a.</i>	<i>n.a.</i>
Other salt .. .. .	11,370	11,839	14,019	11,418	<i>n.a.</i>	<i>n.a.</i>
Montserrat .. .. .	<i>n.a.</i>	<i>n.a.</i>	68	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
St. Kitts .. .. .	105	100	99	877	<i>n.a.</i>	<i>n.a.</i>
St. Lucia—						
Common salt .. .. .	747	649	503	1,065	823	836
Refined salt .. .. .	40	4	3	63	72	73
St. Vincent—						
Unrefined salt .. .. .	19	1	20	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Refined salt .. .. .	435	415	911	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Rock and coarse salt .. .. .	2,339	2,749	2,228	2,231	2,764	2,808
Refined salt .. .. .	7,421	7,670	8,222	8,658	7,771	7,896
Virgin Islands .. .. .	21	15	21	21	28	28
Guyana—						
Rock and coarse salt .. .. .	(b) 2	1	18	6	3	3
Refined salt, etc. .. .. .	2,702	2,832	3,202	3,025	3,214	3,266
Brunei .. .. .	734	1,095	998	588	<i>n.a.</i>	<i>n.a.</i>
Ceylon—						
Refined salt .. .. .	80	64	167	211	<i>n.a.</i>	<i>n.a.</i>
Other salt .. .. .	4,113	10,950	3,096	11	<i>n.a.</i>	<i>n.a.</i>
Cyprus .. .. .	314	212	369	477	372	378
Hong Kong .. .. .	29,465	32,434	36,482	34,108	35,973	36,550
India (a) .. .. .	—	4	7	45	227	231
Malaysia (West) .. .. .	71,640	83,114	84,525	104,501	82,046	83,363
Sabah .. .. .	2,965	3,710	3,636	6,752	4,442	4,513

(a) Years ended March 31 following that stated.

(b) Excess of re-exports.

## IMPORTS OF SALT (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Sarawak .. .. .	5,660	6,379	6,550	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Singapore .. .. .	26,826	27,022	34,356	92,026	41,537	42,203
Australia (a)—						
Refined salt .. .. .	77	9	211	6	16	16
Other salt .. .. .	7,012	12,716	8,581	6,235	8,105	8,235
Fiji .. .. .	2,173	1,961	2,317	2,560	<i>n.a.</i>	<i>n.a.</i>
New Guinea (a) .. .. .	1,566	1,297	1,808	1,806	<i>n.a.</i>	<i>n.a.</i>
New Hebrides .. .. .	221	—	7	163	269	273
New Zealand (a) .. .. .	50,456	43,749	45,046	35,456	35,476	36,046
Papua (a) .. .. .	462	312	399	398	<i>n.a.</i>	<i>n.a.</i>
Solomon Islands .. .. .	84	67	113	98	150	153
Western Samoa .. .. .	386	435	318	572	433	440
Irish Republic—						
Refined salt .. .. .	4,890	4,717	5,180	5,411	5,439	5,526
Other salt .. .. .	38,913	41,379	43,745	45,173	49,957	50,759
<b>OTHER COUNTRIES</b>						
Austria—						
Common salt .. .. .	767	21	6,437	13,137	1,928	1,959
Belgium-Luxemburg						
E.U.—						
Common salt .. .. .	722,187	818,204	999,856	1,018,654	1,254,998	1,275,137
Refined salt .. .. .	111,036	110,507	121,855	128,162	136,889	139,086
Denmark—						
Rock-salt .. .. .	153,473	107,057	159,473	} 245,648	447,032	454,206
Refined salt .. .. .	84,071	39,356	27,546			
Faroe Islands .. .. .	20,898	35,807	29,781	31,838	15,978	16,234
Finland .. .. .	370,071	346,779	239,246	420,549	482,670	490,416
France .. .. .	57,141	50,649	69,768	65,414	49,734	50,532
Germany (Federal) .. .. .	98,659	123,598	143,817	174,396	332,345	337,678
Iceland—						
Common salt .. .. .	42,945	42,189	55,960	46,687	41,915	42,588
Refined salt .. .. .	310	317	367	329	335	340
Italy .. .. .	379	3,589	245	313	7,427	7,546
Netherlands—						
Rock-salt .. .. .	} 46,794	38,939	34,213	62,446	410,039	416,619
Sea-salt, etc. .. .. .						
Refined salt .. .. .						
Norway—						
Common salt .. .. .	136,833	112,559	147,101	135,565	190,796	193,858
Refined salt .. .. .	164,724	151,838	170,399	168,652	143,432	145,734
Portugal .. .. .	20,324	10,866	3,853	1,043	3,038	3,087
Spain .. .. .	638	511	923	1,788	1,163	1,182
Sweden .. .. .	819,887	811,043	240,841	977,585	1,085,000	1,102,412
Switzerland .. .. .	1,104	928	1,575	1,102	2,986	3,034
Yugoslavia .. .. .	163,984	121,756	135,490	168,330	143,148	145,445
Cameroun .. .. .	9,302	25,194	18,876	19,739	<i>n.a.</i>	<i>n.a.</i>
Central African						
Republic .. .. .	5,296	3,918	5,289	4,657	<i>n.a.</i>	<i>n.a.</i>
Congo (Brazza) .. .. .	3,024	1,667	3,687	2,082	<i>n.a.</i>	<i>n.a.</i>
Dahomey .. .. .	2,848	r 9,157	9,560	8,586	<i>n.a.</i>	<i>n.a.</i>
Gabon .. .. .	2,012	2,430	2,709	2,548	<i>n.a.</i>	<i>n.a.</i>
Ivory Coast .. .. .	22,111	23,990	22,741	18,300	24,381	24,772

(a) Years ended June 30 of that stated.

## IMPORTS OF SALT (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Malagasy Republic .. .. .	549	803	661	894	954	969
Mali .. .. .	20,504	15,993	12,337	10,249	<i>n.a.</i>	<i>n.a.</i>
Morocco .. .. .	51	69	41	—	—	—
Mozambique .. .. .	1,341	5,842	1,679	829	672	683
Niger .. .. .	<i>n.a.</i>	13,385	8,244	6,176	13,071	13,281
Reunion .. .. .	2,111	1,465	2,466	1,761	<i>n.a.</i>	<i>n.a.</i>
Senegal .. .. .	102	113	75	113	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	1,732	2,104	1,948	2,609	2,634	2,677
Sudan .. .. .	29	46	93	7	48	49
Togo .. .. .	6,727	3,001	7,047	6,749	9,823	9,981
Upper Volta .. .. .	10,263	12,100	13,092	9,425	13,153	13,364
Costa Rica .. .. .	1,454	4,098	4,040	3,863	9,485	9,637
French West Indies—						
Guadeloupe .. .. .	898	1,005	594	2,185	<i>n.a.</i>	<i>n.a.</i>
Martinique .. .. .	2,225	2,933	2,831	1,699	<i>n.a.</i>	<i>n.a.</i>
Greenland .. .. .	7,163	9,302	16,311	9,102	2,709	2,752
Guatemala .. .. .	2,058	4,679	8,368	8,287	6,591	6,697
Honduras .. .. .	140	3,860	1,291	544	<i>n.a.</i>	<i>n.a.</i>
Mexico .. .. .	1,204	5,112	90	458	304	309
Netherlands Antilles .. .. .	623	1,090	989	848	1,016	1,032
Nicaragua .. .. .	3,963	6,791	16,566	25,029	14,767	15,004
St. Pierre and Miquelon .. .. .	1,551	3,790	2,163	2,109	<i>n.a.</i>	<i>n.a.</i>
Salvador .. .. .	2,148	1,731	26	119	75	76
United States .. .. .	1,626,877	2,142,920	2,817,445	2,948,013	3,157,143	3,207,806
Bolivia .. .. .	154	37	111	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil .. .. .	194,153	48,712	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. .. .	15	7	8	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
French Guiana .. .. .	228	317	282	270	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	2,645	2,671	2,882	3,081	<i>n.a.</i>	<i>n.a.</i>
Uruguay .. .. .	50,072	50,064	40,146	39,387	60,531	61,503
Burma .. .. .	68	5	9	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (a) .. .. .	185	112	46	75	110	112
Iraq .. .. .	62	90	14	432	401	407
Japan .. .. .	3,771,232	4,361,824	4,943,937	5,567,440	6,387,171	6,489,666
Lebanon .. .. .	412	584	225	404	232	236
Syria .. .. .	28,845	13,271	19,862	4,481	9,587	9,741
Philippine Republic—						
Crude .. .. .	<i>n.a.</i>	10,335	26,513	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Refined .. .. .	<i>n.a.</i>	114	337	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
French Polynesia .. .. .	320	453	579	371	<i>n.a.</i>	<i>n.a.</i>
New Caledonia .. .. .	378	395	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.

**SELENIUM**  
**PRODUCTION OF SELENIUM**

Producing Country	Lb. avdp.					Kilograms
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	575,412	724,573	635,510	710,618	604,300	274,106
<b>OTHER COUNTRIES</b>						
Belgium (b) .. .. .	90,100	72,300	54,500	45,600	67,700	30,700
Finland .. .. .	11,973	15,000	15,000	15,000	15,300	6,940
Sweden .. .. .	144,041	128,529	168,956	169,756	143,300	65,000
Yugoslavia .. .. .	20,558	10,238	21,246	20,000	35,300	16,000
Mexico .. .. .	24,458	5,000	2,000	42,000	42,000	19,000
United States (a) .. .. .	620,300	598,400	633,000	1,229,000	1,004,600	455,678
Peru .. .. .	13,131	10,604	r 12,712	15,082	15,000	6,800
Japan .. .. .	423,391	422,172	394,000	435,000	449,000	204,000
<b>WORLD'S TOTAL ..</b>	<b>1,900,000</b>	<b>2,100,000</b>	<b>2,100,000</b>	<b>2,700,000</b>	<b>2,400,000</b>	<b>1,090,000</b>

Selenium is also produced in Australia.

(a) Including selenium content of compounds.

(b) Exports.

**EXPORTS OF SELENIUM**

Exporting Country	Lb. avdp.					Kilograms
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	588,100	539,400	787,100	872,300	686,100	311,210
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U. .. .. .	90,100	72,300	54,500	45,600	67,700	30,700
Sweden .. .. .	165,000	n.a.	n.a.	n.a.	n.a.	n.a.
Yugoslavia .. .. .	—	10,439	39,117	29,078	32,064	14,544
Peru .. .. .	14,870	10,741	12,218	11,958	n.a.	n.a.
Japan .. .. .	92,806	105,275	111,384	62,349	58,321	26,454

## IMPORTS OF SELENIUM

Importing Country	Lb. avdp.					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	419,015	298,248	341,470	487,201	406,035	184,174
India (c) .. ..	7,877	19,324	13,159	12,571	18,979	8,609
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
E.U. .. ..	700	5,300	2,094	13,669	116,183	52,700
France .. ..	93,000	62,000	60,000	141,000	81,000	37,000
Germany (Federal) ..	323,000	293,876	454,593	506,843	472,891	214,500
Italy .. ..	38,140	75,178	50,044	75,838	39,683	18,000
Spain .. ..	14,306	13,190	16,175	19,842	13,228	6,000
Sweden .. ..	71,000	22,000	13,000	35,000	33,000	15,000
Yugoslavia .. ..	3,862	1,852	4,200	4,101	6,865	3,114
Morocco (b) .. ..	220	220	227	403	220	100
United States (a) ..	266,321	280,657	562,783	533,612	433,503	196,633
Argentina .. ..	15,999	15,809	19,899	23,223	<i>n.a.</i>	<i>n.a.</i>
Brazil .. ..	17,117	8,190	17,637	13,228	<i>n.a.</i>	<i>n.a.</i>
Peru .. ..	1,466	847	(b) 5,518	492	<i>n.a.</i>	<i>n.a.</i>
Japan .. ..	1,795	10,578	15,084	7,445	12,893	5,848

(a) Including salts.

(c) Years ending March 31 following that stated.

(b) Including tellurium.

**SILLIMANITE, Etc.**  
**PRODUCTION OF SILLIMANITE, ETC.**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>India—</b>						
Kyanite .. .. .	62,664	49,164	63,345	82,842	117,119	118,998
Sillimanite .. .. .	10,124	5,705	4,562	3,883	4,490	4,562
<b>Australia—</b>						
Kyanite, sillimanite and andalusite (a) ..	2,664	1,183	2,115	1,674	1,213	1,232
<b>OTHER COUNTRIES</b>						
<b>South Africa—</b>						
Andalusite .. .. .	21,146	24,195	22,089	41,779	41,850	42,522
Sillimanite .. .. .	34,549	34,826	32,671	27,850	31,412	31,916
<b>South West Africa—</b>						
Kyanite .. .. .	18	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>United States—</b>						
Kyanite (b) .. .. .	60,000	62,000	60,000	62,000	67,000	68,000
<b>Korea (South)—</b>						
Andalusite .. .. .	—	59	111	53	37	38

(a) In addition the following amounts of kaolinised sillimanite were produce (long tons): 1966—6,797; 1967—7,679; 1968—6,997; 1969—10,260; 1970—11,096 (11,274 tonnes).

(b) Estimated. In addition the following amounts of synthetic mullite were produced (long tons): 1966—44,242; 1967—35,971; 1968—32,155; 1969—43,382; 1970—49,568 (50,363 tonnes)

**EXPORTS OF SILLIMANITE, ETC.**

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
<b>India—</b>						
Kyanite .. .. .	35,161	40,011	49,668	44,920	68,235	69,330
Sillimanite .. .. .	6,232	2,014	2,474	2,068	1,716	1,739
<b>OTHER COUNTRIES</b>						
<b>France—</b>						
Kyanite, sillimanite, etc.						
Crude .. .. .	239	750	363	547	699	710
Calcined .. .. .	871	852	1,337	672	943	958

## EXPORTS OF SILLIMANITE, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Germany (Federal)— Kyanite, sillimanite, etc.						
Crude .. .. .	76	215	569	154	59	60
Calcined .. .. .	165	1,616	1,247	1,074	1,054	1,071
Italy— Kyanite, sillimanite, etc.						
Crude .. .. .	1,129	643	148	38	524	533
Calcined .. .. .						
South-West Africa— Kyanite .. .. .	27	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa— Andalusite .. .. .	12,407	7,354	6,487	14,616	21,152	21,491
Sillimanite .. .. .	28,238	33,757	34,743	27,960	27,774	28,220
United States— Kyanite, etc. .. .. .	15,481	19,132	18,283	17,586	21,450	21,794
Japan— Sillimanite, etc. . . . .	116	152	883	2,485	4,057	4,122

## IMPORTS OF SILLIMANITE, ETC.\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Kyanite, sillimanite, etc.	28,135	17,109	18,765	26,814	26,758	27,187
Australia— Kyanite .. .. .	1,332	1,714	1,776	3,240	3,513	3,569
Sillimanite .. .. .	1,055	572	758	302	8	8
<b>OTHER COUNTRIES</b>						
France— Kyanite, sillimanite, etc.						
Crude .. .. .	4,578	2,999	2,672	1,787	1,948	1,979
Calcined .. .. .	1,578	1,392	1,627	1,893	3,764	3,824
Germany (Federal)— Kyanite, sillimanite, etc.						
Crude .. .. .	18,795	14,686	18,162	18,258	20,734	21,067
Calcined .. .. .	1,003	1,214	2,289	4,189	5,701	5,793
Greece— Kyanite, sillimanite, etc.	2,729	1,814	3,369	3,589	4,539	4,612
Italy— Kyanite, sillimanite, etc.	11,246	11,512	6,770	11,303	16,370	16,633
United States— Kyanite, sillimanite, etc.	3,040	1,626	1,295	1,864	1,053	1,070
Japan— Kyanite, sillimanite, etc.	<i>r</i> 18,186	<i>r</i> 30,307	<i>r</i> 30,175	34,273	38,525	39,143
Thailand— Kyanite, sillimanite, etc.	1,595	1,850	302	682	<i>n.a.</i>	<i>n.a.</i>

\*These minerals are not separately recorded in the trade returns of several countries.



**SILVER**  
**PRODUCTION OF SILVER**  
*(Metal content)*

Producing Country	Troy ounces fine					Kilogrms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	19,003	3,038	2,769	1,668	—	—
Rhodesia .. .. .	(e) 95,000	n.a.	n.a.	n.a.	(f) 71,000	(f) 2,200
Swaziland .. .. .	28	—	n.a.	n.a.	n.a.	n.a.
Tanzania .. .. .	10,572	2,294	2,387	2,023	1,102	34
Zambia (b) .. .. .	815,000	825,000	(f) 830,000	(f) 830,000	n.a.	n.a.
Canada .. .. .	33,362,208	36,315,189	45,012,797	43,530,941	44,282,680	1,377,346
India .. .. .	39,224	111,563	94,073	105,390	49,512	1,540
Australia .. .. .	18,887,691	19,842,000	21,394,000	24,457,000	25,995,000	808,535
Fiji .. .. .	67,499	61,820	54,654	38,294	26,640	828
New Guinea .. .. .	18,052	17,176	18,139	17,206	17,180	534
New Zealand .. .. .	2	—	3,854	21,950	16,428	511
<b>TOTAL .. .. .</b>	<b>53,000,000</b>	<b>55,000,000</b>	<b>68,000,000</b>	<b>69,200,000</b>	<b>71,300,000</b>	<b>2,217,000</b>
<b>OTHER COUNTRIES</b>						
Czechoslovakia (d) .. .. .	r 1,100,000	r 1,100,000	r 1,100,000	1,100,000	1,100,000	34,214
Finland .. .. .	520,103	623,000	677,000	624,946	739,756	23,009
France .. .. .	2,008,300	2,162,514	2,166,350	2,396,388	2,282,767	71,002
Germany (Federal) .. .. .	1,983,200	2,022,300	1,769,300	1,684,442	1,800,000	56,000
Germany (East) (d) .. .. .	4,800,000	f)4,800,000	4,800,000	4,800,000	4,800,000	150,000
Greece .. .. .	222,000	239,000	269,000	257,913	419,921	13,061
Italy .. .. .	(g)1,131,800	(g)1,382,400	(g)1,155,700	(g)1,832,592	(g)1,063,321	(g) 33,073
Portugal .. .. .	354,600	380,000	327,000	330,000	279,800	8,703
Roumania (d) .. .. .	600,000	800,000	r 1,100,000	1,100,000	1,100,000	34,214
Spain .. .. .	2,025,000	2,218,000	r(d)1,736,000	(d)2,100,000	(d)1,700,000	(d) 53,700
Sweden .. .. .	3,517,100	3,455,000	3,523,800	3,683,100	3,536,600	110,000
Yugoslavia (g) .. .. .	3,665,249	3,457,716	3,023,102	3,817,772	3,416,691	106,271
Algeria (f) .. .. .	300,000	160,000	290,000	260,000	210,000	6,532
Congo (Kinshasa) .. .. .	1,851,400	1,839,800	2,139,100	1,983,765	1,708,651	53,145
Morocco .. .. .	707,413	772,807	920,000	850,000	680,800	21,176
South Africa .. .. .	3,134,093	3,063,505	3,337,048	3,334,614	3,526,969	109,701
South West Africa (c) .. .. .	1,516,539	1,449,763	1,349,741	1,273,000	1,350,000	42,000
Tunisia .. .. .	38,000	44,700	35,600	(e) 47,000	n.a.	n.a.
Guatemala .. .. .	(h)378	n.a.	n.a.	n.a.	n.a.	n.a.
Haiti .. .. .	50,690	34,000	13,000	n.a.	n.a.	n.a.
Honduras .. .. .	3,734,290	4,009,418	4,397,000	3,905,000	3,815,000	118,700
Mexico .. .. .	41,990,000	38,273,350	40,031,000	42,904,359	47,422,000	1,475,000
Nicaragua .. .. .	361,248	336,118	316,340	119,000	126,417	3,932
United States .. .. .	43,668,988	32,344,862	32,728,979	41,906,311	45,005,615	1,399,831
Argentina .. .. .	2,207,176	2,640,000	2,469,980	2,800,000	2,100,000	65,300
Bolivia (a) .. .. .	4,612,924	4,249,653	4,770,000	6,076,000	4,985,000	155,000
Brazil .. .. .	222,400	478,700	451,700	391,300	n.a.	n.a.
Chile .. .. .	3,609,962	3,065,504	3,739,324	3,132,768	2,392,668	74,420
Colombia .. .. .	106,757	110,060	99,172	76,085	75,851	2,359
Ecuador .. .. .	76,710	79,657	136,204	124,252	69,761	2,170
Peru (i) .. .. .	32,841,243	35,903,000	36,020,000	34,147,000	38,000,000	1,182,000

(a) Exports.

(b) Recovered from copper-refinery slimes.

(c) Accounted for by smelters.

(d) "Metallgesellschaft" estimate.

(e) United States Bureau of Mines' estimate.

(f) Estimated.

(g) Refined.

(h) Imports into the United States.

(i) Recoverable.

PRODUCTION OF SILVER (cont.)

Producing Country	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Burma .. ..	1,096,000	917,000	780,000	902,000	572,000	18,000
China (a) .. ..	800,000	800,000	800,000	800,000	800,000	25,000
Formosa .. ..	79,500	115,800	89,800	80,900	95,000	2,900
Indonesia .. ..	220,779	308,969	309,065	315,881	257,000	8,000
Japan .. ..	10,318,716	10,799,659	10,713,000	10,804,000	11,030,000	343,000
Korea (South) .. ..	500,100	587,910	610,607	629,640	846,271	26,321
Korea (North) (a) .. ..	600,000	(b) 700,000	(b) 700,000	800,000	800,000	25,000
Philippine Republic .. ..	1,162,889	1,368,976	1,510,500	1,566,312	1,701,889	52,935
<b>TOTAL*</b> .. ..	<b>179,000,000</b>	<b>169,000,000</b>	<b>172,000,000</b>	<b>183,000,000</b>	<b>190,000,000</b>	<b>5,901,000</b>
<b>WORLD'S TOTAL*</b> .. ..	<b>232,000,000</b>	<b>224,000,000</b>	<b>240,000,000</b>	<b>252,000,000</b>	<b>261,000,000</b>	<b>8,118,000</b>

\*Totals exclude estimates for the U.S.S.R. for which no authentic figures are available. (In recent years Russian production has been estimated by the United States Bureau of Mines as 29-35,000,000 troy ounces.) An allowance, however, has been made for those other countries for which information is not yet available.

(a) "Metallgesellschaft" estimate.

(b) United States Bureau of Mines' estimate.

**TOTAL EXPORTS OF SILVER\***

*(Metal content)*

Exporting Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bullion .. .. .	35,417,248	31,714,026	29,418,055	18,591,796	22,552,325	701,455
Kenya—						
Refined bullion.. ..	16,924	—	—	—	—	—
Tanzania—						
Refined bullion.. ..	10,572	2,293	2,386	2,023	900	28
Zambia—						
Bullion .. .. .	40,000	166,000	76,097	49,163	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Ore, concentrates, etc.	11,850,469	10,407,418	21,502,022	21,883,028	21,027,980	654,044
Bullion .. .. .	12,221,142	13,735,675	28,104,562	34,658,937	24,199,524	752,690
Hong Kong .. .. .						
Bullion .. .. .	881,558	897,118	1,849,448	763,924	366,115	11,387
Singapore—						
Bullion (b) .. .. .	628,000	1,086,000	2,082,000	982,000	323,700	10,100
Australia (a)—						
Ores and concentrates	2,959,026	3,432,019	3,309,135	3,210,893	3,724,942	115,859
Silver-lead bullion ..	5,887,644	4,714,641	7,543,409	8,736,989	12,182,397	378,915
Bullion, refined.. ..	247,428	2,724,878	11,356,431	11,666,551	8,113,889	252,371
Fiji—						
Bullion .. .. .	67,783	61,690	54,419	33,698	<i>n.a.</i>	<i>n.a.</i>
Irish Republic—						
Bullion (b) .. .. .	34,400	16,000	30,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bullion and scrap ..	9,208,000	8,115,000	17,188,000	45,091,400	37,709,000	1,172,900
Denmark—						
Bullion .. .. .	58,000	11,000	82,000	636,000	150,790	4,690
Beaten, rolled or drawn	4,000	6,000	20,000	19,300	12,860	400
France—						
Bullion and scrap ..	3,126,000	773,000	8,645,000	3,518,000	3,078,000	95,735
Beaten, rolled or drawn	2,026,000	1,409,000	1,624,000	2,780,000	2,315,000	71,995
Germany (Federal)—						
Bullion .. .. .	14,416,000	13,542,000	23,940,000	27,683,000	14,231,000	442,650
Netherlands—						
Bullion and scrap ..	771,000	722,000	1,659,900	3,122,600	5,311,000	165,189
Beaten, rolled or drawn	211,000	217,500	480,500	1,247,800	571,400	17,772
Sweden—						
Bullion .. .. .	386,000	1,800,000	4,018,800	5,626,400	5,433,500	169,000
Switzerland—						
Bullion .. .. .	1,848,000	1,676,000	407,000	3,743,000	2,450,400	76,216
Yugoslavia—						
Bullion .. .. .	2,977,000	2,616,000	2,320,000	3,255,000	2,748,000	85,483
Morocco—						
Bullion .. .. .	69,285	758,000	915,000	848,890	567,200	17,641
South Africa—						
Bullion .. .. .	11,827,383	11,175,744	4,108,791	3,713,085	2,499,896	77,755
South West Africa—						
Concentrates (d) ..	483,764	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Guatemala (c)—						
Ore and base bullion ..	378	9,000	<i>n.a.</i>	20,000	<i>n.a.</i>	<i>n.a.</i>
Honduras—						
Ore and base bullion ..	3,842,005	3,845,394	1,982,351	2,003,634	3,996,948	124,319

\*Excluding silver coin, but including silver shipped for minting.

(a) Years ended June 30 of that stated.

(b) Estimated.

(c) Imports into the United States from the country stated.

(d) Contained in lead complex concentrates exported.

## EXPORTS OF SILVER (cont.)

Exporting Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Mexico—						
Bullion, etc. . . . .	34,245,000	28,936,000	37,320,000	27,653,000	17,262,000	536,900
Nicaragua—						
Bullion . . . . .	447,956	181,870	159,693	168,051	126,417	3,932
United States—						
Ore and base bullion . . . . .	369,000	2,365,000	23,129,000	31,047,000	10,374,898	322,695
Refined bullion . . . . .	85,169,000	68,404,000	102,632,000	57,956,000	17,239,000	536,200
Argentina—						
Bullion, etc. . . . .	214,000	337,000	395,000	17,683	<i>n.a.</i>	<i>n.a.</i>
Bolivia—						
Ores, etc. . . . .	4,612,924	4,249,653	4,770,000	6,076,000	5,966,000	185,563
Chile—						
Ores, etc. . . . .	2,300,418	2,377,194	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador (a)—						
Ore and base bullion . . . . .	20,000	29,000	13,000	23,000	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Ores and concentrates	14,793,595	} 30,768,258	33,100,000	36,000,000	<i>n.a.</i>	<i>n.a.</i>
Bullion . . . . .	20,576,305					
Burma—						
Bullion . . . . .	1,256,430	400,957	299,934	<i>n.a.</i>	700,000	22,000
Japan—						
Bullion and scrap (b) . . . . .	99,000	167,259	701,819	1,489,427	256,876	7,989
Philippine Republic (a)—						
Ore and base bullion . . . . .	587,000	317,000	358,000	300,000	<i>n.a.</i>	<i>n.a.</i>

(a) Imports into the United States from the country stated.

(b) Including "beaten, rolled or drawn".

**TOTAL IMPORTS OF SILVER\***  
(Metal content)

Importing Country and Description	Troy ounces fine					Kilograms.
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ores .. .. .	202,000	—	—	—	—	—
Unrefined bullion .. .. .	6,685,162	13,226,990	53,171,493	19,673,284	11,933,624	371,177
Refined bullion .. .. .	48,149,119	50,575,441	72,706,499	104,234,170	38,021,346	1,182,596
Malta—						
Bullion .. .. .	(c) 11,951	(c) 15,749	(c) 6,289	(c) 5,081	(c) 18,839	(c) 586
Nigeria—						
Bullion (c) .. .. .	47,250	7,263	1,368	13,186	1,390,112	43,237
Zambia—						
Bullion .. .. .	n.a.	812	n.a.	n.a.	n.a.	n.a.
Canada—						
Bullion .. .. .	14,477,787	5,383,872	14,060,635	19,168,785	4,319,357	134,347
Jamaica—						
Bullion .. .. .	9,000	17,500	n.a.	—	n.a.	n.a.
Trinidad and Tobago—						
Bullion .. .. .	20,870	27,868	48,734	24,469	18,849	586
Guyana—						
Bullion (c) .. .. .	6,190	7,134	5,899	5,315	n.a.	n.a.
Ceylon—						
Bullion .. .. .	110,000	6,523	—	n.a.	n.a.	n.a.
Cyprus—						
Bullion .. .. .	(c) 109,000	(c) 112,000	54,898	27,501	(c) 72,933	(c) 2,268
Hong Kong—						
Bullion .. .. .	245,266	252,261	484,222	346,536	170,675	5,309
India —						
Bullion .. .. .	r 6,623	9,709	1,897	15,850	34,112	1,061
Malaysia (West)—						
Bullion (b) .. .. .	300	732	1,868	n.a.	n.a.	n.a.
Sarawak—						
Bullion .. .. .	15	58	7	n.a.	n.a.	n.a.
Singapore—						
Bullion (b) .. .. .	2,000	7,000	158,000	126,400	627,600	19,520
Australia (a)—						
Bullion .. .. .	98,684	107,001	77,878	n.a.	n.a.	n.a.
New Zealand (a)—						
Beaten, rolled or drawn	25,817	18,475	—	5,935	n.a.	n.a.
Irish Republic—						
Bullion (b) .. .. .	37,825	41,724	13,200	185,700	170,600	5,306
<b>OTHER COUNTRIES</b>						
Austria—						
Bullion .. .. .	3,778,000	3,273,000	2,363,080	3,494,785	2,739,200	85,200
Belgium-Luxemburg						
E.U.—						
Bullion and scrap .. .. .	14,043,000	10,198,200	35,066,800	19,425,479	12,722,000	395,700
Denmark—						
Bullion .. .. .	825,000	546,241	311,862	221,840	180,044	5,600
Beaten, rolled or drawn	3,353,000	3,628,211	2,621,893	2,790,684	3,006,094	93,500
Finland—						
Bullion, etc. .. .. .	1,323,000	1,876,000	648,156	737,634	716,575	22,288
France—						
Bullion and scrap .. .. .	27,571,000	18,578,242	29,152,580	18,602,774	14,163,044	440,520
Beaten, rolled or drawn	1,353,000	1,530,665	1,760,643	2,556,373	1,933,931	60,152
Germany (Federal)—						
Bullion .. .. .	45,169,000	47,720,000	59,990,100	78,125,900	61,139,400	1,901,650

\*Excluding silver coin, but including silver shipped for minting.

(a) Years ended June 30 of that stated.

(c) Including partly worked.

(b) Estimated.

## IMPORTS OF SILVER (cont.)

Troy ounces fine      Kilograms.

Importing Country and Description	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands—						
Bullion and scrap ..	4,316,500	1,513,400	3,545,000	5,020,800	3,015,500	93,793
Beaten, rolled or drawn	1,419,000	2,056,700	2,622,400	2,723,600	3,057,600	95,103
Norway—						
Bullion .. .. .	1,234,000	1,051,000	827,000	2,026,000	1,927,400	59,950
Beaten, rolled or drawn	1,846,000	1,978,000	1,780,000	1,740,000	2,173,300	67,597
Portugal—						
Bullion and scrap ..	316,000	908,000	541,700	520,868	793,384	24,677
Beaten, rolled and drawn	98,000	74,000	60,600	115,456	93,076	2,895
Spain .. .. .	6,438,668	4,816,149	3,278,186	3,623,033	2,668,500	83,000
Sweden—						
Bullion .. .. .	482,000	386,000	386,000	418,000	450,000	14,000
Switzerland—						
Bullion .. .. .	17,762,000	18,636,000	16,347,390	3,743,000	7,099,700	220,825
South Africa—						
Bullion .. .. .	142,465	161,719	237,104	191,526	250,511	7,791
Guatemala—						
Bullion .. .. .	2,200	800	2,668	1,929	1,930	60
United States—						
Ore and base bullion ..	36,288,344	25,642,000	28,786,000	31,888,000	29,243,996	909,500
Refined bullion .. .	27,040,450	29,878,000	41,923,000	39,543,000	32,571,028	1,013,000
Brazil—						
Bullion .. .. .	970,000	901,000	983,330	1,069,109	1,479,000	46,000
Colombia—						
Bullion and scrap ..	59,000	13,000	23,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Bullion and scrap ..	7,032,000	10,157,000	12,291,443	10,449,817	13,270,437	412,700
Lebanon—						
Bullion and scrap ..	760,400	46,900	19,300	18,300	32,800	1,021
Turkey—						
Bullion, etc. .. .	19,400	48,000	1,000	15,000	<i>n.a.</i>	<i>n.a.</i>

**STRONTIUM MINERALS**  
**PRODUCTION OF STRONTIUM MINERALS**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Celestite .. ..	9,405	6,680	7,763	11,536	9,351	9,501
Canada (a)—						
Celestite .. ..	—	—	—	6,000	10,000	10,000
Pakistan (b)—						
Celestite .. ..	527	373	640	760	295	299
<b>OTHER COUNTRIES</b>						
Italy—						
Celestite .. ..	588	650	766	911	831	844
Spain—						
Celestite .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,543	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Celestite .. ..	<i>r</i> 5,595	<i>r</i> 2,503	<i>r</i> 3,398	17,791	11,815	12,005
Argentina—						
Celestite .. ..	364	30	69	13	14	14

Strontium minerals are also known to have been produced in Germany, Poland and the U.S.S.R.  
 (a) Estimated strontium sulphate content of crude material stockpiled. (b) West Pakistan.

**EXPORTS OF STRONTIUM MINERALS, ETC.**

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Celestite .. ..	7,383	3,863	5,824	7,546	5,758	5,850
<b>OTHER COUNTRIES</b>						
France—						
Oxide .. ..	—	5	79	32	35	36
Italy—						
Strontium minerals ..	117	118	80	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Spain (a)—						
Strontium minerals ..	—	—	3,967	2,011	3,000	3,048
Mexico—						
Celestite .. ..	6,202	2,788	2,500	17,781	27,102	27,537

(a) Imports into United States.

**IMPORTS OF STRONTIUM MINERALS, ETC.**

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
France—						
Strontium minerals ..	65	31	55	849	866	880
United States—						
Strontium minerals ..	10,283	5,011	11,514	24,824	33,262	33,796
Strontium compounds ..	<i>n.a.</i>	7	16	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

**SULPHUR**  
(see also Pyrites)  
**PRODUCTION OF SULPHUR**

Producing Country and Description	Long tons					Tonnes				
	1966					1970				
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970
<b>COMMONWEALTH COUNTRIES</b>										
United Kingdom—										
Spent oxide ..	n.a.	n.a.	n.a.	n.a.	n.a.	87,980	81,101	66,536	53,217	34,110
Anhydrite (a) ..	n.a.	n.a.	n.a.	n.a.	n.a.	204,656	237,641	263,529	252,067	248,113
Other (b) ..	n.a.	n.a.	n.a.	n.a.	n.a.	39,712	45,967	46,131	42,265	36,128
Canada—										
Smelter gas ..	n.a.	n.a.	n.a.	n.a.	n.a.	446,730	528,603	594,973	603,740	632,857
Hydrogen sulphide (g)(f)	n.a.	n.a.	n.a.	n.a.	n.a.	1,822,793	2,073,413	2,304,237	2,654,916	3,374,866
Australia—										
Sulphur content of: zinc concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	203,555	219,826	224,105	270,997	261,895
lead concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	57,696	56,490	50,244	56,367	53,497
<b>OTHER COUNTRIES</b>										
Austria—										
Recovered sulphur ..	28,813	31,052	31,372	40,334	n.a.	28,813	31,052	31,372	40,334	n.a.
Belgium—										
By-product sulphur ..	5,000	8,190	8,521	10,000	10,000	5,000	8,190	8,521	10,000	10,000
Bulgaria (c) ..	9,200	8,200	8,500	8,563	7,000	9,200	8,200	8,500	8,563	7,000
France—										
Sulphur (d) ..	1,516,111	1,638,824	1,609,000	1,705,000	1,714,000	n.a.	n.a.	n.a.	n.a.	n.a.
Finland (c) ..	72,478	e 103,000	e 123,000	e 110,000	e 113,000	72,478	e 103,000	123,000	110,000	113,000
Germany (Federal)—										
Refined sulphur ..	82,476	104,071	124,877	127,033	173,092	78,540	104,071	124,877	127,033	173,092
Germany (East)—										
Sulphur ..	125,681	121,339	117,597	107,823	h 108,000	125,681	121,339	117,597	107,823	h 108,000

(a) For sulphuric acid manufacture only.

(b) Including sulphur recovered from petroleum refineries.

(c) Sulphur recovered from pyrites or other sulphide ores.

(d) Recovered from natural gas.

(e) Estimated.

(f) Recovered from natural gas and nickel sulphide.

(g) Sales.

(h) United States Bureau of Mines' estimate.



PRODUCTION OF SULPHUR (cont.)

Producing Country and Description	Long tons					Tonnes				
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970
	Estimated Sulphur Content									
<b>OTHER COUNTRIES (cont.)</b>										
Italy—										
Sulphur rock ..	582,047	493,078	532,552	406,938	354,218	73,000	65,000	69,000	52,000	45,000
Fused (c) ..	13,834	9,681	6,916	1,300	n.a.	13,834	9,681	6,916	1,300	n.a.
Ground sulphur rock (c) ..	18,160	14,355	22,182	n.a.	n.a.	5,000	4,300	n.a.	n.a.	n.a.
Netherlands (f) ..	45,000	42,000	42,000	42,000	n.a.	45,000	42,000	42,000	42,000	n.a.
Poland—										
Native sulphur ..	n.a.	n.a.	n.a.	n.a.	n.a.	469,000	r 710,000	r 1,295,000	1,911,000	2,642,000
Spain—										
Refined sulphur (h) ..	27,819	42,120	27,823	28,082	31,349	27,819	42,120	27,823	28,082	30,854
Sweden—										
Sulphur ..	9,842	n.a.	n.a.	n.a.	n.a.	9,842	n.a.	n.a.	n.a.	n.a.
U.S.R. (d)—										
Native sulphur ..	n.a.	n.a.	n.a.	n.a.	n.a.	984,000	1,034,000	1,033,000	1,102,000	1,102,000
By-product sulphur ..	423,000	443,000	443,000	472,000	479,000	423,000	443,000	443,000	472,000	472,000
Egypt—										
By-product sulphur (a) ..	11,490	8,839	3,149	500	(d) 1,000	11,490	8,839	3,149	500	1,000
South Africa—										
By-product sulphur (a) ..	(d) 6,300	(d) 6,000	(d) 6,000	(d) 12,000	(d) 12,000	6,300	6,000	6,000	12,000	12,000
Mexico—										
Crude sulphur (f) ..	1,611,446	1,793,085	1,582,206	1,605,601	1,296,000	1,611,446	1,793,085	1,582,206	1,605,601	1,276,000
Sulphur ore (g) ..	n.a.	n.a.	n.a.	n.a.	n.a.	29,322	23,542	23,922	26,421	24,000
Refined sulphur (e) ..	38,160	47,577	52,204	57,043	60,000	38,160	47,577	52,204	57,043	60,000
United States—										
Crude sulphur (f) ..	7,001,360	7,014,448	7,458,392	7,145,658	7,195,477	7,001,360	7,014,448	7,458,392	7,145,658	7,081,884
Sulphur ore (g) ..	557	568	3,125	143	284	557	568	1,563	284	1,563
Smelter gas (b) ..	1,297,184	1,114,881	1,315,251	1,583,000	1,663,000	424,075	364,477	429,982	517,515	535,000

(a) Recovered from petroleum refineries.  
 (b) Estimated sulphur content of gas driven off in the smelting of lead, zinc and copper concentrates, recovered as sulphuric acid.  
 (c) Derived from sulphur rock above.  
 (d) United States Bureau of Mines' estimate.  
 (e) Recovered from natural gas.  
 (f) Frasch-process mines.  
 (g) Other mines.  
 (h) Mainly recovered from pyrites.  
 (i) Sulphur recovered from pyrites or other sulphide ores.

PRODUCTION OF SULPHUR (cont.)

Producing Country and Description	Long tons Tonnes					Long tons Tonnes							
	1966	1967	1968	1969	1970	Estimated Sulphur Content							
						1966	1967	1968	1969	1970	1970		
<b>OTHER COUNTRIES</b>													
United States (cont.)—													
By-product sulphur (h)	1,243,960	1,270,289	1,358,926	1,422,000	1,457,000	1,480,000	1,240,386	1,267,955	1,414,000	1,449,000	1,472,000		
Hydrogen sulphide and liquid sulphur dioxide(h)	161,962	157,262	247,297	n.a.	n.a.	n.a.	133,859	134,198	n.a.	n.a.	n.a.	n.a.	
Argentina—							29,942	32,278	34,033	(c) 34,000	(c) 34,000	(c) 35,000	
Refined sulphur	29,942	32,278	33,107	34,033	(c) 34,000	(c) 35,000	29,942	32,278	34,033	(c) 34,000	(c) 35,000		
Bolivia (f)—							56,554	49,513	35,647	16,054	16,054	16,312	
Refined sulphur	56,554	49,513	34,869	35,647	16,054	16,312	56,554	49,513	35,647	16,054	16,054	16,312	
Chile—							n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Smelter gases, etc. (g)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11,277	11,995	13,321	9,134	9,281	9,281	
Refined sulphur	36,694	44,988	40,705	45,979	46,443	47,188	36,500	44,800	45,979	46,443	47,188	47,188	
Colombia—							20,649	24,000	30,000	31,000	32,000	32,000	
Refined sulphur	20,649	24,000	28,000	30,000	31,000	32,000	20,649	24,000	30,000	31,000	32,000	32,000	
Ecuador—							n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Native sulphur	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	267	243	n.a.	n.a.	n.a.	n.a.	
China (c)—							118,000	118,000	118,000	118,000	118,000	120,000	
Native sulphur	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	128,000	128,000	128,000	128,000	128,000	130,000	
Recovered sulphur (d)	128,000	128,000	128,000	128,000	128,000	130,000	128,000	128,000	128,000	128,000	128,000	130,000	
Formosa—							6,860	6,387	4,754	5,964	6,060	6,060	
Refined sulphur	6,860	6,387	4,362	4,754	5,964	6,060	6,860	6,387	4,754	5,964	6,060	6,060	
Indonesia—							n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Native sulphur	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(c) 1,200	(c) 1,800	(c) 1,200	(c) 1,200	(c) 1,000	(c) 1,000	
Iran—							25,000	25,000	39,000	39,000	39,000	40,000	
By-product sulphur (a)(c)	25,000	25,000	37,000	39,000	39,000	40,000	25,000	25,000	37,000	39,000	39,000	40,000	
Japan—							225,000	250,000	200,719	234,000	234,000	238,000	
Refined sulphur (e)	225,000	250,000	256,000	200,719	234,000	238,000	225,000	250,000	200,719	234,000	234,000	238,000	
By-product sulphur (a)	52,187	61,201	73,000	140,000	101,000	103,000	52,187	61,201	73,000	101,000	101,000	103,000	
Philippine Republic (b)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14	24	41	31	n.a.	n.a.	
Turkey—							22,300	25,000	24,000	26,000	26,000	26,000	
Refined sulphur	22,300	25,000	24,000	25,000	26,000	26,000	22,300	25,000	24,000	26,000	26,000	26,000	

Sulphur is also produced in Iraq.  
 (a) Recovered from petroleum refineries.  
 (b) Including sulphur recovered from gold and silver mines  
 (c) United States Bureau of Mines' estimate.  
 (d) Probably recovered from pyrites.  
 (e) From sulphur rock and sulphide ores.  
 (f) Exports.  
 (g) Sulphur contained in sulphuric acid.  
 (h) Produced in treatment of industrial gases.

EXPORTS OF SULPHUR

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	1,484	1,851	<i>n.a.</i>	<i>n.a.</i>	2,452	2,491
Canada .. .. .	1,249,193	1,583,635	1,884,942	2,021,679	2,668,243	2,711,068
Singapore—						
Crude .. .. .	38	2,081	4,355	4,245	5,676	5,767
Refined .. .. .	161	805	372	3,060	103	105
Australia—						
Zinc concentrates						
( <i>S content</i> ) (a) .. .. .	58,000	<i>r</i> 76,000	80,000	91,000	121,800	123,700
New Zealand (b) .. .. .	2	2	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	—	2,057	3	544	291	296
Refined .. .. .	9,298	8,030	3,977	5,123	6,175	6,274
France—						
Crude .. .. .	868,030	1,012,571	1,039,387	845,137	1,119,166	1,137,125
Unrefined ground .. .. .	2,127	4,309	2,822	2,669	3,449	3,504
Refined lump .. .. .	735	2,035	1,380	2,999	1,011	1,027
Flowers of sulphur .. .. .	7,697	3,076	2,708	3,086	2,179	2,214
Precipitated sulphur .. .. .	5	2	8	50	34	35
Germany (Federal) .. .. .	66,467	72,961	45,173	37,522	36,442	37,027
Germany (East) .. .. .	7,905	11,399	<i>n.a.</i>	13,847	<i>n.a.</i>	<i>n.a.</i>
Greece .. .. .	20,359	7,674	22,771	24,678	9,390	9,541
Italy—						
Crude .. .. .	20	49	24	538	542	551
Refined .. .. .	1,415	2,102	2,900	5,892	4,975	5,055
Flowers of sulphur .. .. .	305	326	297	278	358	364
Precipitated sulphur .. .. .	13	7				
Netherlands—						
Crude .. .. .	1	2,480	617	1,356	830	843
Refined .. .. .	49	25	205	38	83	84
Norway .. .. .	2,053	—	—	18	5	5
Poland .. .. .	267,435	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Portugal .. .. .	933	2,060	456	774	414	421
Spain—						
Refined .. .. .	343	245	244	246	63	64
Sweden .. .. .	89	24	18	4	29	30
Switzerland .. .. .	294	224	203	232	225	229
U.S.S.R. .. .. .	216,000	277,153	286,600	356,800	456,475	463,800
South Africa .. .. .	127	4,992	10,945	2,877	511	519
Mexico .. .. .	<i>r</i> 1,486,000	1,611,394	1,400,000	1,140,021	651,523	661,978
United States—						
Crude .. .. .	2,326,103	2,042,079	1,549,047	1,549,000	1,429,055	1,451,987
Refined and flowers of sulphur .. .. .	47,339	149,825	52,786	2,000	3,835	3,897
Bolivia .. .. .	57,334	49,514	34,869	35,647	16,054	16,312
Japan .. .. .	5,717	1,947	25,635	29,671	1,958	1,989
Turkey .. .. .	4,114	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Estimated amount recoverable.

(b) Years ended June 30 of that stated.

IMPORTS OF SULPHUR

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Sulphur .. .. .	753,896	701,040	} 769,029	730,484	804,649	817,564
Wastes and residues .. .. .	459	15,360				
Malta—						
Crude .. .. .	2	20	7	45	—	—
Flowers of sulphur .. .. .	124	233	299	215	223	227
Kenya .. .. .	1,419	270	511	535	955	970
Mauritius .. .. .	111	83	69	106	39	40
Nigeria .. .. .	74	1,290	253	116	336	342
Tanzania .. .. .	550	270	407	286	449	456
Uganda .. .. .	5,894	2,746	1,589	4,461	4,547	4,620
Zambia—						
Crude .. .. .	3,021	2,836	3,950	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Flowers of sulphur .. .. .	21	23	2,261	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada .. .. .	129,879	111,412	67,692	40,632	47,728	48,494
Jamaica .. .. .	1,009	3,477	1,303	—	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago .. .. .	16,963	14,471	44,080	18,813	15,495	15,744
Guyana .. .. .	6	3	4	1	2	2
Ceylon .. .. .	2,056	1,631	452	961	<i>n.a.</i>	<i>n.a.</i>
Cyprus .. .. .	1,992	1,467	2,397	598	1,771	1,799
Hong Kong .. .. .	709	1,605	1,540	1,808	2,091	2,125
India .. .. .	283,048	583,281	384,154	289,515	513,109	521,343
Malaysia (West) .. .. .	5,372	4,061	5,754	5,516	10,643	10,814
Singapore—						
Crude .. .. .	2,000	—	—	17	7,536	7,657
Refined .. .. .	1,346	782	7,769	10,365	9,496	9,649
Australia .. .. .	434,045	513,962	548,563	383,886	320,151	325,289
New Zealand (a) .. .. .	211,548	187,626	166,425	157,741	242,997	246,897
Irish Republic .. .. .	85,288	97,851	102,495	106,811	118,780	120,686
<b>OTHER COUNTRIES</b>						
Austria .. .. .	80,778	87,776	82,564	110,642	115,004	116,850
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	215,218	220,373	283,592	298,713	326,098	331,331
Refined .. .. .	528	371	525	286	2,438	2,477
Czechoslovakia .. .. .	234,000	233,000	282,000	262,000	298,000	303,000
Denmark .. .. .	10,318	6,595	5,900	11,449	10,966	11,142
Finland .. .. .	76,622	50,426	33,703	38,496	36,648	37,236
France—						
Crude .. .. .	222,468	231,002	329,303	345,477	318,819	323,935
Unrefined ground .. .. .	59	120	710	134	357	363
Refined lump .. .. .	317	265	314	365	356	362
Precipitated .. .. .	39	95	129	242	309	314
Germany (Federal) .. .. .	366,008	319,482	247,575	315,181	287,878	292,498
Greece .. .. .	58,017	76,252	98,876	142,503	43,290	43,985
Hungary .. .. .	149,000	165,347	242,601	93,592	125,622	127,638
Italy .. .. .	84,400	75,996	39,900	200,598	295,458	300,199
Netherlands—						
Crude .. .. .	196,318	275,705	327,508	381,064	407,419	413,957
Refined .. .. .	1,796	1,687	2,325	2,264	2,236	2,272
Norway .. .. .	40,958	37,298	25,859	33,920	33,469	34,006
Portugal .. .. .	33,732	18,517	20,481	26,851	23,686	24,066
Spain .. .. .	37,659	63,204	53,147	73,333	60,917	61,894

(a) Years ended June 30 of that stated.

## IMPORTS OF SULPHUR (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden .. .. .	176,210	121,921	146,576	116,541	132,513	134,640
Switzerland—						
Crude and ground	54,414	41,446	34,684	54,252	63,716	64,739
Flowers of sulphur	239	184	331	207	283	288
U.S.S.R. .. .. .	26,900	45,766	9,252	24,400	213,300	216,700
Yugoslavia .. .. .	14,566	21,364	20,325	22,273	21,408	21,752
Algeria .. .. .	33,306	23,160	36,368	33,953	<i>n.a.</i>	<i>n.a.</i>
Angola .. .. .	560	460	519	623	821	834
Canary Islands—						
Crude .. .. .	} 7,483	6,291	7,706	7,692	6,250	6,350
Refined, etc. .. .. .						
Egypt .. .. .	39,066	38,800	56,714	32,824	46,651	47,400
Malagasy Republic .. .. .	20	22	15	22	21	21
Morocco—						
Crude .. .. .	9,981	5,945	12,376	29,504	19,529	19,842
Unrefined, ground	644	563	380	277	395	401
Refined .. .. .	101	140	120	89	98	100
Flowers of sulphur	3,023	1,604	1,709	213	414	421
Mozambique .. .. .	659	377	4,917	1,948	4,564	4,637
South Africa .. .. .	181,838	197,260	217,845	156,467	165,270	167,922
Tunisia—						
Crude and unrefined	126,913	122,195	142,600	131,249	166,296	168,965
Refined and flowers of sulphur	1,280	788	—	90	8	8
Costa Rica .. .. .	59	15	36	47	96	98
Guatemala .. .. .	98	14	13	29	30	30
Mexico .. .. .	244	240	106	141	138	140
Nicaragua .. .. .	308	55	142	108	259	263
Salvador .. .. .	5,444	6,181	3	3,204	2,544	2,585
United States .. .. .	1,514,032	1,474,182	1,571,542	1,675,000	1,537,481	1,562,153
Argentina—						
Crude .. .. .	34,829	20,606	22,025	43,712	50,908	51,725
Refined and flowers of sulphur	150	91	87	95	151	153
Bolivia .. .. .	18	46	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
Crude .. .. .	164,331	199,631	234,177	213,440	256,823	260,944
Refined .. .. .	524	2,135	3,496	1,200	361	367
Precipitated .. .. .	12	5	7	2	8	8
Chile .. .. .	55,520	31,977	37,976	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. .. .	64	1,059	40	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador .. .. .	159	139	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	13,043	13,941	5,405	912	<i>n.a.</i>	<i>n.a.</i>
Uruguay .. .. .	9,291	10,059	7,638	5,999	5,862	5,956
Venezuela .. .. .	3,451	26,447	42,282	11,433	<i>n.a.</i>	<i>n.a.</i>
Burma .. .. .	661	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa .. .. .	68,210	163,275	64,864	183,245	241,367	245,240
Iran (a) .. .. .	3,717	379	689	536	422	429
Iraq .. .. .	56	5,134	2,887	316	651	661
Israel .. .. .	55,538	72,268	68,945	57,187	40,304	40,951
Japan .. .. .	9,630	31	8	23	10,403	10,570
Jordan .. .. .	2,050	1,765	775	1,818	869	883
Korea (South) .. .. .	21,693	28,141	54,243	135,445	147,374	149,739
Lebanon .. .. .	10,019	12,871	30,934	56,292	60,159	61,124
Philippine Republic .. .. .	<i>n.a.</i>	5,976	5,099	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria .. .. .	2,041	59	212	342	—	—
Thailand .. .. .	10,998	8,272	15,009	11,895	23,100	23,470
Turkey .. .. .	103	591	9,973	14,371	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.

**TALC**  
**PRODUCTION OF TALC**  
(Including Steatite and Pyrophyllite)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	8,978	8,968	11,345	10,099	10,780	10,953
Swaziland—						
Pyrophyllite .. ..	1,426	589	573	591	250	254
Canada (c) .. ..	62,629	54,165	71,954	67,723	67,000	68,000
India—						
Steatite .. .. .	146,697	133,173	163,689	173,791	152,243	154,686
Pyrophyllite .. ..	8,266	4,856	10,507	10,714	13,509	13,726
Pakistan (e) .. ..	3,231	2,607	2,576	2,219	1,710	1,737
Australia—						
Talc .. .. .	(f) 21,275	(f) 20,108	(f) 37,262	48,918	} 128,866	130,934
Pyrophyllite (g) ..	262	555	969	(d) 3,115		
<b>OTHER COUNTRIES</b>						
Austria .. .. .	75,098	76,505	83,219	92,651	98,577	100,159
Finland .. .. .	5,000	2,500	4,732	28,286	61,700	62,700
France .. .. .	220,537	213,920	242,198	243,184	229,300	233,000
Germany (Federal) ..	32,393	32,772	27,576	44,715	33,272	33,806
Greece .. .. .	4,430	4,168	2,500	5,978	5,905	6,000
Italy .. .. .	110,899	116,596	114,029	134,345	152,372	154,818
Norway .. .. .	77,113	78,043	73,771	66,598	(a) 62,500	(a) 63,500
Portugal .. .. .	709	138	1,437	1,181	1,778	1,807
Spain .. .. .	28,596	31,416	28,569	33,195	(a) 33,500	(a) 34,000
Sweden .. .. .	18,200	23,900	23,326	27,951	31,800	32,300
U.S.S.R. (a) .. ..	350,000	364,000	364,000	374,000	374,000	380,000
Egypt .. .. .	29,170	(a) 30,000	(a) 30,000	4,200	(a) 4,500	(a) 4,600
South Africa (b) ..	8,509	8,992	8,909	8,673	7,448	7,568
Mexico .. .. .	2,471	2,872	631	1,312	2,071	2,104
United States—						
Talc .. .. .	687,324	700,942	738,962	825,795	810,582	823,584
Pyrophyllite .. ..	111,787	104,872	116,629	93,167	107,212	108,932
Argentina .. .. .	29,378	24,996	20,930	21,370	21,000	21,000
Brazil .. .. .	28,412	28,895	78,235	123,085	n.a.	n.a.
Chile .. .. .	2,233	2,836	2,769	796	629	639
Colombia .. .. .	1,176	1,176	1,349	1,525	1,723	1,751
Paraguay .. .. .	59	71	74	88	118	120
Peru—						
Pyrophyllite .. ..	4,430	5,454	5,950	7,409	(a) 7,900	(a) 8,000
Uruguay .. .. .	2,094	2,596	2,173	2,270	1,608	1,634
China (a) .. .. .	150,000	150,000	150,000	150,000	150,000	150,000
Formosa .. .. .	28,298	40,662	28,595	23,988	38,106	38,717
Japan—						
Talc .. .. .	103,054	127,772	141,726	149,000	} 1,845,000	1,875,000
Pyrophyllite .. ..	988,143	1,220,811	1,520,599	1,529,000		
Korea (South)—						
Talc .. .. .	52,763	55,391	63,738	128,847	133,201	135,338
Pyrophyllite .. ..	53,826	65,540	89,707	68,819	92,510	93,995
Korea (North) (a) ..	49,000	49,000	59,000	69,000	79,000	80,000
Philippine Republic ..	627	437	858	925	1,565	1,590
<b>TOTAL*</b> .. .. .	<b>3,470,000</b>	<b>3,770,000</b>	<b>4,230,000</b>	<b>4,420,000</b>	<b>4,860,000</b>	<b>4,940,000</b>

\*Excluding talc known to have been produced in Roumania.

(a) United States Bureau of Mines' estimate.

(b) In addition the following amounts of wonderstone were produced (long tons):  
1966—6,172; 1967—4,546; 1968—5,013; 1969—4,631; 1970—4,736 (4,661 tonnes).

(c) Shipments. (d) Includes pyrophyllite previously classified as talc. (e) West Pakistan.

(f) Includes some pyrophyllite.

(g) Includes chlorite.

EXPORTS OF TALC

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
India .. .. .	10,240	10,107	13,378	25,006	18,123	18,414
Malaysia (West) .. .. .	20	46	10	131	71	72
Singapore .. .. .	458	692	901	1,186	1,008	1,024
Australia .. .. .	7,634	8,648	24,982	33,599	30,847	31,342
<b>OTHER COUNTRIES</b>						
Austria .. .. .	59,601	60,772	71,710	78,464	82,603	83,929
Belgium-Luxemburg E.U. .. .. .	1,487	8,351	11,564	14,119	15,662	15,913
France .. .. .	43,414	44,280	43,677	48,101	59,918	60,880
Germany (Federal) .. .. .	1,128	1,515	3,989	5,462	6,169	6,268
Greece .. .. .	192	84	247	315	645	655
Italy .. .. .	38,827	31,851	39,963	49,423	54,621	55,498
Netherlands .. .. .	207	140	172	420	392	398
Norway .. .. .	73,621	74,907	71,798	62,389	65,327	66,375
Portugal .. .. .	33	83	42	33	71	72
Sweden .. .. .	3,978	3,762	4,641	3,810	6,282	6,383
Switzerland .. .. .	527	1,707	2,027	1,712	2,393	2,432
Egypt .. .. .	1,235	1,213	1,676	1,260	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	347	274	184	253	498	506
Mexico .. .. .	18	40	24	89	16	16
United States .. .. .	62,837	59,103	58,614	61,627	93,701	95,205
Japan .. .. .	982	752	881	436	812	825
Korea (South)— Talc .. .. .	40,436	56,948	47,910	59,676	40,772	41,426
Turkey .. .. .	46	16	50	67	<i>n.a.</i>	<i>n.a.</i>

## IMPORTS OF TALC

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom	47,714	50,149	49,664	50,968	57,456	58,378
Canada .. .. .	22,248	23,645	25,218	31,170	29,525	29,999
Ceylon .. .. .	1,153	1,633	1,143	1,325	<i>n.a.</i>	<i>n.a.</i>
Hong Kong .. .. .	1,181	1,371	1,412	1,478	2,483	2,523
Malaysia (West) .. .. .	1,483	2,326	2,856	3,025	3,049	3,098
Singapore .. .. .	1,359	2,982	4,409	4,963	6,286	6,387
Australia (a) .. .. .	1,897	2,228	2,048	3,003	2,921	2,968
New Zealand (a) .. .. .	1,750	1,392	1,406	1,651	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,469	1,204	1,691	1,392	1,032	1,049
Belgium-Luxemburg						
E.U. .. .. .	35,562	26,401	29,191	32,393	39,102	39,730
Denmark .. .. .	13,539	13,839	14,150	13,181	17,546	17,828
Finland .. .. .	4,915	4,841	4,312	5,953	6,062	6,159
France .. .. .	7,549	8,522	9,502	9,545	10,030	10,191
Germany (Federal) .. .. .	67,349	60,330	76,565	90,543	96,332	97,878
Greece .. .. .	179	1,306	1,970	1,927	3,853	3,915
Italy .. .. .	12,305	14,196	15,628	17,487	17,623	17,906
Netherlands .. .. .	14,272	14,457	15,023	14,724	18,541	18,839
Norway .. .. .	4,812	4,339	5,922	5,108	2,722	2,766
Poland .. .. .	14,500	10,109	17,270	22,853	20,782	21,116
Portugal .. .. .	1,895	2,279	2,600	2,625	3,325	3,378
Spain .. .. .	2,481	2,408	2,484	3,667	4,864	4,942
Sweden .. .. .	18,329	18,328	18,622	18,428	21,771	22,121
Switzerland .. .. .	12,535	12,537	12,166	11,204	13,715	13,935
U.S.S.R. .. .. .	59,300	56,297	49,998	81,400	90,744	92,200
Yugoslavia .. .. .	1,578	658	690	1,515	1,374	1,396
Algeria .. .. .	1,788	1,790	2,071	2,130	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic	76	31	58	83	30	30
Morocco .. .. .	1,592	774	1,184	792	1,079	1,096
South Africa .. .. .	1,198	1,663	2,960	2,395	2,018	2,050
Tunisia .. .. .	344	434	1,169	892	1,299	1,320
Costa Rica .. .. .	116	201	262	253	328	333
Guatemala .. .. .	114	232	160	267	290	295
Honduras .. .. .	52	45	71	58	46	47
Mexico—						
Talc .. .. .	46,520	32,423	52,010	58,194	66,224	67,287
Pyrophyllite .. .. .	81	120	<i>n.a.</i>	173	218	222
Salvador .. .. .	124	133	144	98	127	129
United States .. .. .	19,561	30,377	21,709	18,175	26,775	27,205
Argentina .. .. .	227	499	141	232	575	584
Brazil .. .. .	—	30	102	1	<i>n.a.</i>	<i>n.a.</i>
Chile .. .. .	171	200	133	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia .. .. .	931	947	523	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ecuador .. .. .	192	233	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru .. .. .	795	917	672	789	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	2,936	3,383	5,712	4,350	<i>n.a.</i>	<i>n.a.</i>
Iran (b) .. .. .	108	248	425	219	191	194
Iraq .. .. .	666	334	924	599	583	592
Japan .. .. .	75,739	93,313	125,480	152,272	155,762	158,262
Lebanon .. .. .	167	287	422	583	381	387
Philippine Republic .. .. .	2,814	2,794	4,222	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria .. .. .	767	167	285	907	529	537
Thailand .. .. .	1,977	2,009	2,128	2,653	3,146	3,196
Turkey .. .. .	71	137	117	138	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended June 30 of that stated.

(b) Years ended March 20 of year following that stated.



**TANTALUM AND NIOBIUM MINERALS**  
**PRODUCTION OF TANTALUM AND NIOBIUM MINERALS**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria—						
Tantalite .. ..	65	18	27	6	4	4
Columbite .. ..	2,221	1,919	1,132	1,491	1,590	1,616
Uganda—						
Tantalite and columbite	12	28	8	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Niobium concentrates ( <i>Nb<sub>2</sub>O<sub>5</sub> content</i> ) ..	1,178	985	974	1,524	2,196	2,231
Malaysia (West)—						
Columbite .. ..	67	87	51	63	60	61
Australia—						
Tantalite and columbite	5	36	106	152	54	55
<b>OTHER COUNTRIES</b>						
Portugal—						
Tantalite and columbite	10	14	12	6	4	4
Congo (Kinshasa)—						
Tantalite and columbite concentrates ( <i>b</i> ) ..	94	144	112	76	144	146
Ivory Coast—						
Tantalite and columbite	—	—	1	—	—	—
Malagasy Republic—						
Columbite .. ..	1	—	—	—	—	—
Mozambique—						
Tantalite-columbite ..	64	88	61	63	95	97
Microlite .. ..	78	69	91	81	63	64
South Africa—						
Tantalite-columbite ..	2	4	18	4	3	3
South West Africa—						
Tantalum and niobium concentrates .. ..	1	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Argentina ( <i>a</i> )—						
Tantalite .. ..	4	1	3	1	3	3
Brazil—						
Tantalite-columbite	4	55	128	199	<i>n.a.</i>	<i>n.a.</i>
Pyrochlore concentrates	4,700	4,543	4,920	8,526	8,900	8,900
French Guiana—						
Tantalite and columbite	1	—	—	—	1	1
TOTAL ( <i>c</i> ) ..	9,500	8,900	8,700	13,100	15,200	15,400

Small quantities of tantalite and columbite have been produced in Zambia, India and the Somali Republic.

(*a*) Imports into the United States.

(*b*) Including tantalite-columbite content of tin-tantalite-columbite.

(*c*) Total of tantalum and niobium concentrates produced in the countries listed above.

## EXPORTS OF TANTALUM AND NIOBIUM MINERALS, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ferro-niobium and ferro-niobium-tantalum ..	196	175	152	281	203	206
Nigeria—						
Tantalite .. ..	11	15	16	17	4	4
Columbite .. ..	2,325	2,085	1,349	1,310	1,764	1,792
Uganda—						
Tantalite and columbite	12	14	7	5	8	8
Malaysia (West)—						
Columbite .. ..	82	57	53	46	24	24
Australia (a)—						
Tantalite and columbite	7	27	54	70	106	108
OTHER COUNTRIES						
Germany (Federal)—						
Tantalum metal, etc. ..	(21,400lb.)	(29,900lb.)	(13,600lb.)	(51,092lb.)	(136,982lb.)	(62,134kgs)
Niobium metal, etc. ..	(2,900lb.)	(3,700lb.)	(4,700lb.)	(4,000lb.)	(3,353lb.)	(1,521kgs)
Portugal—						
Tantalite and columbite	29	25	9	<i>n.a.</i>	12	12
Congo (Kinshasa) (b)—						
Tantalite and columbite(c)	60	60	150	130	130	132
Mozambique—						
Columbite .. ..	140	<i>r</i> 160	<i>r</i> 170	80	190	193
South Africa—						
Tantalite .. ..	11	4	14	2	31	32
United States—						
Tantalum concentrates	73	34	29	38	54	55
Tantalum metal, etc. ..	(21,722lb.)	(48,790lb.)	(98,205lb.)	(95,323lb.)	(609,315lb.)	(276,381kgs)
Niobium metal, etc. ..	(4,101lb.)	<i>n.a.</i>	<i>n.a.</i>	(4,611lb.)	(37,792lb.)	(17,142kgs)
Tantalum powder ..	(51,354lb.)	(157,325lb.)	(83,713lb.)	(99,861lb.)	(138,992lb.)	(63,046kgs)
Brazil—						
Tantalite .. ..	157	202	267	200	205	208
Columbite .. ..	58	100	62	68	40	41
Pyrochlore concentrates	3,736	2,682	2,900	5,650	8,366	8,500

(a) Years ended June 30 of that stated.

(b) Including Rwanda and Burundi.

(c) Estimated.

IMPORTS OF TANTALUM AND NIOBIUM MINERALS, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Tantalum and niobium ores and concentrates	1,558	1,053	1,054	2,738	2,903	2,950
Tantalum metal ..	(33,040lb.)	(46,411lb.)	(70,135lb.)	(87,341lb.)	(106,828lb.)	(48,456kgs)
<b>OTHER COUNTRIES</b>						
France—						
Tantalum and niobium minerals ..	422	376	551	1,145	711	723
Germany (Federal)—						
Tantalum and niobium minerals ..	1,383	1,003	1,649	2,041	2,884	2,930
Tantalum metal, etc. ..	(40,100lb.)	(19,740lb.)	(58,530lb.)	(128,156lb.)	(151,336lb.)	(68,645kgs)
United States—						
Tantalum concentrates	957	871	549	435	467	474
Niobium concentrates ..	4,142	3,318	1,632	1,858	2,553	2,594
Tantalum metal ..	(47,748lb.)	(54,887lb.)	(17,863lb.)	(10,949lb.)	(51,428lb.)	(23,327kgs.)
Niobium metal (a) ..	(4,431lb.)	(55,552lb.)	(5,391lb.)	(5,185lb.)	(1,777lb.)	(806kgs.)
Japan—						
Niobium minerals ..	553	465	773	1,294	1,101	1,119
Tantalum ores and concentrates ..	6,891	1,089	122	106	113	115
Tantalum metal ..	(8,682lb.)	(241,677lb.)	(30,896lb.)	(49,438lb.)	(93,852lb.)	(42,571kgs)

(a) As recorded in official trade returns. According to U.S. Bureau of Mines includes ferro-alloy.

**TIN**  
**PRODUCTION OF TIN ORE**  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,284	1,436	1,642	1,695	1,695	1,722
Nigeria ..	9,299	9,340	9,649	8,603	7,833	7,959
Rhodesia ..	(a) 600	(a) 600	(a) 600	(a) 600	(a) 600	(a) 600
Tanzania ..	346	353	323	177	49	50
Uganda ..	120	104	169	163	109	111
Zambia ..	3	—	—	—	—	—
Canada (b) ..	317	195	r 160	129	125	127
Malaysia (West) ..	68,886	72,121	75,069	72,167	72,630	73,794
Australia ..	4,807	5,586	r 6,537	8,106	8,778	8,919
<b>TOTAL ..</b>	<b>85,600</b>	<b>89,400</b>	<b>94,300</b>	<b>91,200</b>	<b>91,800</b>	<b>93,300</b>
<b>OTHER COUNTRIES</b>						
France ..	421	447	370	249	332	337
Germany (Eastern) (g) ..	1,000	1,000	1,000	1,000	1,000	1,000
Portugal ..	600	645	668	489	428	435
Spain ..	199	160	140	138	172	175
Cameroun ..	42	33	33	27	27	27
Congo (Kinshasa) ..	5,100	4,664	8,806	5,560	6,345	6,447
Congo (Brazza) ..	44	53	26	48	48	48
Morocco ..	(a) 12	(a) 12	18	12	12	12
Niger ..	57	56	71	85	73	74
Rwanda and Burundi ..	1,382	(a) 1,422	(a) 1,420	(a) 1,420	(a) 1,420	(a) 1,440
South Africa ..	1,745	1,763	1,837	1,794	1,949	1,980
South West Africa ..	687	(f) 720	(f) 700	(f) 700	(a) 700	(a) 720
Mexico ..	789	588	518	492	554	563
United States ..	97	50	(g) 100	(a) 72	(a) 71	(a) 72
Argentina ..	458	802	701	855	(f) 900	(f) 900
Bolivia (c) ..	25,825	27,283	29,101	29,625	28,444	28,900
Brazil ..	1,475	1,599	1,700	2,458	4,228	4,296
Peru (e) ..	18	65	94	80	104	106
Burma ..	370	259	270	298	250	254
China (d) (f) ..	22,000	20,000	20,000	20,000	20,000	20,000
Indonesia ..	12,568	13,601	16,632	16,281	18,791	19,092
Japan ..	970	1,166	943	729	781	793
Korea (South) ..	—	76	76	76	75	76
Laos ..	335	548	482	790	629	639
Thailand ..	22,565	22,490	23,601	20,857	21,434	21,778
<b>TOTAL*</b> ..	<b>99,000</b>	<b>99,000</b>	<b>107,000</b>	<b>104,000</b>	<b>109,000</b>	<b>111,000</b>
<b>WORLD'S TOTAL*</b> ..	<b>185,000</b>	<b>188,000</b>	<b>201,000</b>	<b>196,000</b>	<b>201,000</b>	<b>204,000</b>

\*Excluding tin ore known to have been produced in Czechoslovakia, the U.S.S.R. and Vietnam.

- (a) International Tin Council estimate.
- (b) Tin in concentrates exported and in tin-lead alloy.
- (c) Content of ore plus metal exported.
- (d) Smelter.
- (e) Recoverable.
- (f) United States Bureau of Mines' estimate.
- (g) "Metallgesellschaft" estimate.

**SMELTER PRODUCTION OF TIN**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	17,499	23,317	24,933	25,982	21,687	22,035
Nigeria .. ..	8,225	9,131	9,843	8,839	7,941	8,069
Rhodesia .. ..	(b) 600	(b) 600	(b) 600	(b) 600	(c) 600	(c) 600
Malaysia (West) ..	71,049	76,328	88,185	86,878	90,652	92,107
Australia .. ..	3,640	3,594	3,692	4,156	5,129	5,211
<b>TOTAL .. ..</b>	<b>101,000</b>	<b>113,000</b>	<b>127,000</b>	<b>126,000</b>	<b>126,000</b>	<b>128,000</b>
<b>OTHER COUNTRIES</b>						
Belgium .. ..	6,472	6,070	5,881	6,474	5,639	5,730
Germany—						
Federal Republic ..	1,362	1,622	1,504	1,446	1,176	1,195
Eastern (d) .. ..	1,200	1,100	1,200	1,200	1,100	1,100
Netherlands .. ..	12,551	13,739	7,983	5,298	5,843	5,937
Portugal .. ..	556	592	638	501	386	392
Spain .. ..	1,877	1,823	2,324	2,264	2,943	2,990
Congo (Kinshasa) ..	2,002	1,404	1,909	1,900	1,400	1,400
Morocco (b) .. ..	12	12	12	12	12	12
South Africa .. ..	822	658	682	738	603	613
Mexico .. ..	795	607	317	400	140	142
United States .. ..	3,825	3,048	3,453	345	4,468	4,540
Argentina (b) .. ..	120	120	120	120	118	120
Bolivia (a) .. ..	1,083	1,059	59	85	295	299
Brazil .. ..	1,211	1,415	1,251	2,000	3,050	3,100
China (c) .. ..	22,000	20,000	20,000	20,000	20,000	20,000
Indonesia (b) .. ..	1,510	1,481	4,560	7,639	5,108	5,190
Japan .. ..	1,836	1,666	1,859	1,387	1,353	1,375
Thailand .. ..	16,990	26,551	24,434	22,048	21,692	22,040
<b>TOTAL* .. ..</b>	<b>77,000</b>	<b>83,000</b>	<b>79,000</b>	<b>74,000</b>	<b>75,000</b>	<b>76,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>178,000</b>	<b>196,000</b>	<b>207,000</b>	<b>200,000</b>	<b>201,000</b>	<b>204,000</b>

\*Excluding tin metal known to have been produced in Czechoslovakia and the U.S.S.R.

In addition secondary tin recovered in the United States (as metal, in alloys, and in chemical compounds) was as follows:

Year	Long tons	Year	Long tons	Tonnes
1966 .. ..	25,349	1969 .. ..	22,775	
1967 .. ..	22,667	1970 .. ..	20,001	20,322
1968 .. ..	22,495			

(a) Exports.

(b) International Tin Council estimate.

(c) United States Bureau of Mines' estimate.

(d) "Metallgesellschaft" estimate.

EXPORTS OF TIN, ETC.\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unwrought .. ..	6,003	9,377	10,517	13,551	12,746	12,951
do. alloys .. ..	3,565	3,127	2,356	2,847	2,760	2,804
Semi-manufactures (a)	648	730	610	594	1,001	1,017
Nigeria—						
Ore and concentrates ..	634	9	1,151	4	3	3
Unwrought (a) .. ..	11,495	10,813	11,280	10,110	10,731	10,903
Tanzania— .. ..						
Ore and concentrates ..	487	378	385	176	237	241
Uganda—						
Ore and concentrates ..	204	183	291	232	182	185
Canada—						
Concentrates (Sn content) .. ..	337	326	118	304	264	268
Hong Kong—						
Scrap .. ..	1	6	2	32	90	91
Semi-manufactures	25	34	39	52	52	53
India (b)—						
Scrap .. ..	10	32	—	—	22	22
Malaysia (West)—						
Ore .. ..	1,254	1,176	957	741	685	696
Unwrought .. ..	71,410	73,528	86,017	87,530	90,485	91,937
Semi-manufactures (a)	39	41	27	—	27	27
Australia—						
Ore and concentrates ..						
(Sn content) .. ..	1,326	1,662	3,135	3,524	3,661	3,720
Unwrought .. ..	1	28	234	632	1,101	1,119
do. alloys .. ..	4					
New Zealand (c)—						
Scrap .. ..	7	2	6	17	n.a.	n.a.
OTHER COUNTRIES						
Austria—						
Unwrought (a) .. ..	26	17	23	10	63	64
Belgium-Luxemburg						
E.U.—						
Unwrought .. ..	4,215	3,739	4,246	3,843	2,995	3,043
do. alloys .. ..	89	81	—	40	57	58
Scrap .. ..	174	124	144	123	109	111
Semi-manufactures (a)	239	37	56	41	52	53
Denmark—						
Unwrought .. ..	67	37	148	81	120	122
do. alloys .. ..	760	1,032	876	1,383	1,171	1,190
Scrap .. ..	—	32	108	47	3	3
Semi-manufactures (a)	27	48	55	51	55	56
France—						
Ore .. ..	560	524	560	359	399	406
Unwrought .. ..	89	53	122	279	120	122
do. alloys .. ..	138	104	165	281	171	174
Semi-manufactures (a)	38	54	76	129	103	105
Germany (Federal)—						
Ore .. ..	59	46	43	56	25	26
Unwrought (a) .. ..	1,632	1,994	1,512	1,489	863	877
Scrap .. ..	30	81	47	80	199	202
Semi-manufactures (a)	171	182	230	259	391	397

\*In these tables the description "unwrought" tin corresponds to item 687.1 in the Standard International Trade Classification (Revised) and comprises ingots, pigs, unwrought bars, sticks, etc. "Semi-manufactures" corresponds to S.I.T.C. (R) 687.2 and includes foil and powder as well as sheets, strip, wire, pipes, tubes, etc.

(a) Including alloys.

(b) Years ended March 31 following that stated.

(c) Year ended June 30 of that stated.

## EXPORTS OF TIN, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Unwrought (a) ..	255	115	301	230	229	233
Semi-manufactures (a)	8	11	12	11	29	30
Netherlands—						
Unwrought .. ..	11,659	11,500	8,974	7,076	5,351	5,437
do. alloys .. ..	232	407	341	196	291	296
Scrap (a) .. ..	334	322	579	451	1,176	1,195
Semi-manufactures (a)	362	257	341	359	421	428
Norway—						
Unwrought (a) ..	238	238	256	216	225	229
Semi-manufactures (a)	5	2	3	4	2	2
Portugal—						
Unwrought .. ..	89	350	270	90	76	77
Spain—						
Unwrought .. ..	41	95	228	403	1,323	1,344
Sweden—						
Unwrought .. ..	79	21	66	43	377	383
do. alloys .. ..	65	49	131	20	56	57
Switzerland—						
Unwrought .. ..	52	24	24	22	135	137
Scrap .. .. ..	85	60	84	152	106	108
Semi-manufactures (a)	29	39	57	63	108	110
U.S.S.R.—						
Unwrought .. ..	7	6	—	—	—	—
Cameroun—						
Ore .. .. ..	31	49	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo (Kinshasa) (c)—						
Ore (b) .. .. .	7,120	6,130	7,199	5,000	4,200	4,300
Unwrought (b) ..	1,870	1,280	1,828	1,600	1,500	1,500
Congo (Brazza)—						
Ore .. .. ..	43	83	32	—	<i>n.a.</i>	<i>n.a.</i>
Niger—						
Ore .. .. ..	63	53	80	44	20	20
South Africa—						
Concentrates ..	943	1,079	1,172	1,136	1,420	1,443
South West Africa—						
Ore and concentrates ..	664	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States—						
Unwrought (a) ..	1,866	2,050	3,813	1,603	4,009	4,073
Scrap (a) .. ..	7,012	2,775	4,629	4,305	2,397	2,435
Semi-manufactures (a)	221	182	499	1,064	360	366
Argentina—						
Ore .. .. ..	3	—	81	23	59	60
Tin-silver ore .. ..	3,219	4,117	4,568	5,597	4,392	4,462
Bolivia—						
Ores, concentrates, etc.						
( <i>Sn content</i> ) .. ..	24,742	25,600	28,883	29,961	28,148	28,600
Unwrought .. ..	381	820	<i>n.a.</i>	85	156	158
Peru—						
Concentrates						
( <i>Sn content</i> ) .. ..	19	<i>n.a.</i>	185	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Unwrought						
( <i>Sn content</i> ) .. ..	33	<i>n.a.</i>	40	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Burma—						
Ore and concentrates						
( <i>Sn content</i> ) .. ..	124	60	107	32	83	84

(a) Including alloys.

(b) Estimated.

(c) Including Rwanda and Burundi.

EXPORTS OF TIN, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
China—						
Unwrought (b) .. ..	5,000	3,000	4,000	3,000	4,000	4,000
Japan—						
Unwrought .. ..	211	46	105	136	(a) 387	(a) 393
Semi-manufactures (a)	112	73	333	564	746	758
Laos—						
Ore (Sn content) ..	463	415	533	803	772	784
Thailand—						
Ore (Sn content) ..	454	—	—	—	25	25
Unwrought .. ..	17,315	26,572	23,507	23,062	21,502	21,847

(a) Including alloys.

(b) Estimated.



IMPORTS OF TIN, ETC.\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore and concentrates ..	55,697	62,803	67,551	74,306	68,921	70,027
Unwrought (a) ..	9,893	8,199	9,445	6,833	6,396	6,498
Ghana—						
Unwrought (a) ..	—	6	8	2	—	—
Semi-manufactures (a) ..	184	138	99	248	225	229
Kenya—						
Unwrought (a) ..	77	30	70	53	92	94
Malawi—						
Unwrought ..	29	—	—	} 2	4	4
Semi-manufactures ..	17	1	n.a.			
Mauritius—						
Unwrought (a) ..	3	5	4	3	1	1
Semi-manufactures (a) ..	3	13	4	67	1	1
Nigeria—						
Unwrought and semi-manufactures (a) ..	641	187	90	451	188	191
Tanzania—						
Unwrought (a) ..	18	18	40	31	42	43
Uganda—						
Unwrought (a) ..	20	16	8	17	17	17
Zambia—						
Unwrought and semi-manufactures (a) ..	69	64	43	85	n.a.	n.a.
Canada—						
Unwrought ..	4,254	4,548	4,301	4,946	5,030	5,111
Semi-manufactures ..	9	15	16	63	36	37
Barbados—						
Unwrought (a) ..	4	102	3	2	2	2
Semi-manufactures (a) ..	300	334	341	551	618	628
Jamaica—						
Unwrought (a) ..	31	36	53	139	n.a.	n.a.
Semi-manufactures (a) ..	24	5	171	13	n.a.	n.a.
Trinidad and Tobago—						
Unwrought (a) ..	12	5	6	162	6	6
Semi-manufactures (a) ..	4,061	6,566	4,340	1,072	60	61
Guyana—						
Unwrought (a) ..	23	17	18	19	17	17
Semi-manufactures (a) ..	1	2	3	1	—	—
Ceylon—						
Unwrought ..	53	36	47	43	n.a.	n.a.
do. alloys ..	41	4	2	—	n.a.	n.a.
Semi-manufactures (a) ..	2,985	3,592	3,381	220	n.a.	n.a.
Hong Kong—						
Unwrought (a) ..	51	89	81	174	212	216
Scrap ..	3	2	—	4	1	1
Semi-manufactures (a) ..	(b) 9	(b) 3	5	10	9	9
India—						
Unwrought ..	5,695	6,961	6,171	4,830	6,209	6,309
Semi-manufactures (a)(c) ..	54	26	22	4	8	8
Malaysia (West)—						
Ore ..	3,242	6,769	25,459	18,387	20,833	21,167
Unwrought (a) ..	203	55	70	157	101	103
Semi-manufactures (a) ..	59	195	87	158	351	357

\*See footnote on page 356 concerning the descriptions "unwrought" tin and "semi-manufactures" used in these tables.

(a) Including alloys.

(c) Years ended March 31 following that stated.

(b) Excess of re-exports.

## IMPORTS OF TIN, ETC (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b> (cont.)						
Sabah—						
Unwrought .. ..	12	11	12	(a) 12	(a) 4	(a) 4
Semi-manufactures ..	12	9	6	5	27	27
Australia—						
Unwrought .. ..	203	693	159	104	108	110
Semi-manufactures(b) ..	21	27	26	27	25	25
Fiji—						
Semi-manufactures (a)	274	179	284	n.a.	n.a.	n.a.
Sarawak—						
Unwrought and semi-manufactures (a) ..	120	109	135	n.a.	n.a.	n.a.
New Zealand (b)—						
Unwrought (a) .. ..	388	389	293	315	n.a.	n.a.
Semi-manufactures (a)	16	20	14	23	n.a.	n.a.
Irish Republic—						
Unwrought (a) .. ..	63	92	32	96	340	346
<b>OTHER COUNTRIES</b>						
Austria—						
Unwrought (a) .. ..	564	523	556	604	603	613
Semi-manufactures (a)	42	82	42	56	62	63
Belgium-Luxemburg						
E.U.—						
Ore .. ..	6,797	5,943	6,407	5,556	5,905	6,000
Unwrought .. ..	3,080	2,624	2,409	3,179	2,543	2,584
do. alloys .. ..	175	163	170	153	196	199
Scrap .. ..	23	17	8	19	23	23
Semi-manufactures (a)	191	104	138	138	231	235
Czechoslovakia—						
Unwrought .. ..	3,065	2,106	4,501	3,017	n.a.	n.a.
Denmark—						
Unwrought .. ..	581	680	763	761	761	773
do. alloys .. ..	459	399	343	385	464	472
Scrap .. ..	93	311	254	280	750	762
Semi-manufactures (a)	94	93	77	87	89	90
Finland—						
Unwrought (a) .. ..	360	237	244	333	339	345
France—						
Unwrought .. ..	10,441	10,148	9,384	10,925	9,676	9,831
do. alloys .. ..	104	68	255	216	195	198
Scrap .. ..	38	31	111	79	174	177
Semi-manufactures (a)	38	38	57	35	51	52
Germany (Federal)—						
Ore .. ..	7,373	8,250	7,988	7,655	5,890	5,985
Unwrought (a) .. ..	12,941	12,162	16,883	15,286	14,847	15,085
Scrap (a) .. ..	196	175	186	201	298	303
Semi-manufactures (a)	18	7	33	22	70	71
Greece—						
Unwrought .. ..	258	215	311	195	237	241
Hungary—						
Unwrought .. ..	1,429	1,186	1,263	1,389	1,827	1,856
Iceland—						
Semi-manufactures (a)	14	12	13	10	9	9
Italy—						
Unwrought .. ..	5,686	5,810	6,898	7,120	7,075	7,189
do. alloys .. ..	224	196	170	337	247	251
Scrap .. ..	—	19	43	18	38	39
Semi-manufactures (a)	82	71	44	94	102	104

(a) Including alloys.

(b) Years ended June 30 of that stated.

## IMPORTS OF TIN, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Netherlands—						
Ore .. .. .	15,880	19,768	11,461	10,378	9,996	10,157
Unwrought .. .. .	3,184	5,053	4,221	6,295	5,117	5,199
do. alloys .. .. .	483	890	428	179	156	159
Scrap (a) .. .. .	286	314	238	311	291	296
Semi-manufactures (a)	58	44	63	81	137	139
Norway—						
Unwrought .. .. .	417	343	412	410	433	440
do. alloys .. .. .	177	218	234	196	192	195
Semi-manufactures (a)	354	414	459	468	585	594
Poland—						
Unwrought .. .. .	3,421	3,171	3,246	3,925	3,481	3,537
Portugal—						
Unwrought (a) .. .. .	7	15	30	107	163	166
Semi-manufactures (a)	9	13	13	11	15	15
Spain—						
Ore .. .. .	3,094	2,066	2,502	4,949	5,364	5,450
Unwrought .. .. .	163	13	3	3	—	—
Sweden—						
Unwrought .. .. .	675	574	646	482	793	806
do. alloys .. .. .	85	115	116	94	142	144
Semi-manufactures (a)	104	136	147	147	156	159
Switzerland—						
Unwrought .. .. .	865	854	869	913	930	945
Semi-manufactures (a)	141	115	110	154	170	173
U.S.S.R.—						
Unwrought .. .. .	4,700	5,600	6,980	6,690	8,170	8,300
Yugoslavia—						
Unwrought .. .. .	1,378	1,792	1,385	927	1,550	1,575
Semi-manufactures (a)	35	29	60	38	83	84
Egypt—						
Unwrought and scrap ..	1,285	438	467	281	620	630
Malagasy Republic—						
Semi-manufactures (a)	3	6	7	3	9	9
Morocco—						
Unwrought .. .. .	135	232	247	255	196	199
Mozambique—						
Semi-manufactures .. ..	56	20	44	11	17	17
South Africa—						
Unwrought .. .. .	386	318	384	402	439	446
Sudan—						
Unwrought and scrap ..	1	59	1	—	75	76
Semi-manufactures .. ..	59	22	22	540	30	30
Tunisia—						
Unwrought (a) .. .. .	22	28	29	12	20	20
Semi-manufactures (a)	9	13	8	34	107	109
Mexico—						
Unwrought .. .. .	482	80	811	630	411	418
United States—						
Ore (Sn content) .. .. .	r 4,450	3,255	r 2,808	n.a.	4,667	4,742
Unwrought .. .. .	41,624	49,923	57,358	54,949	50,554	51,365
do. alloys (b) .. .. .	875	692	623	1,832	853	867
Scrap .. .. .	89	281	344	643	720	732
Argentina—						
Unwrought .. .. .	1,467	845	1,078	1,293	1,109	1,127
Brazil—						
Ore .. .. .	234	1	30	384	—	—
Unwrought (a) .. .. .	1	3	8	2	—	—
Colombia—						
Unwrought (a) .. .. .	252	127	239	321	172	175
Semi-manufactures (a)	16	6	7	n.a.	n.a.	n.a.

(a) Including alloys.

(b) Including alloyed scrap, dross and residues.

## IMPORTS OF TIN, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Chile—						
Unwrought .. ..	860	862	659	687	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Unwrought (a) .. ..	182	193	167	186	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Unwrought .. ..	27	27	47	42	34	35
Venezuela—						
Unwrought .. ..	124	133	103	94	80	81
Burma—						
Unwrought .. ..	—	4	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	4	—	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Formosa—						
Unwrought (a) .. ..	381	324	301	452	462	469
Iran (b)—						
Unwrought .. ..	236	277	225	331	299	304
Iraq—						
Unwrought .. ..	32	51	43	36	81	82
Semi-manufactures ..	63	94	35	142	114	116
Israel—						
Unwrought .. ..	126	126	146	135	178	181
Japan—						
Ore and concentrates ..	1,687	594	1,102	22	245	249
Unwrought .. ..	16,838	19,300	20,273	25,542	26,455	26,880
Jordan—						
Semi-manufactures ..	31	<i>n.a.</i>	18	—	<i>n.a.</i>	<i>n.a.</i>
Korea (South)—						
Unwrought and semi- manufactures .. ..	214	201	(a) 276	<i>n.a.</i>	388	394
Lebanon—						
Unwrought .. ..	14	18	17	12	41	42
Philippine Republic—						
Unwrought (a) .. ..	600	700	600	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Southern Yemen						
Semi-manufactures (a)	710	141	415	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Unwrought and scrap ..	80	54	130	69	118	120
Turkey—						
Unwrought (a) .. ..	1,060	867	1,089	808	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	2	—	3	4	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

**TITANIUM MINERALS**  
**PRODUCTION OF TITANIUM MINERALS**

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Sierra Leone—						
Rutile concentrates ..	—	18,918	5,629	28,017	43,360	44,056
Canada (shipments) (b)—						
Ilmenite .. ..	1,129,181	1,287,712	1,424,552	1,646,656	2,222,000	2,257,663
Ceylon—						
Ilmenite .. ..	(a) 40,549	(a) 52,298	(a) 73,430	81,546	83,226	84,562
Rutile .. ..	—	—	1,134	2,711	2,357	2,395
India—						
Ilmenite .. ..	29,691	40,952	57,797	46,939	77,700	78,900
Rutile .. ..	1,787	2,496	2,644	2,461	2,461	2,500
Malaysia (West) (a)—						
Ilmenite .. ..	116,386	89,372	123,838	130,533	219,089	222,605
Australia—						
Ilmenite concentrates ..	513,011	543,056	551,499	698,560	865,570	879,462
Rutile concentrates ..	243,858	265,514	288,936	356,339	361,746	367,552
Leucoxene .. ..	756	1,856	1,607	8,032	10,317	10,482
<b>OTHER COUNTRIES</b>						
Finland—						
Ilmenite concentrates ..	115,703	124,896	138,000	136,000	148,600	151,000
Norway—						
Ilmenite .. ..	363,887	418,836	395,863	482,987	569,815	578,961
Portugal—						
Ilmenite .. ..	473	527	545	203	234	238
Spain—						
Ilmenite .. ..	44,488	36,486	38,432	28,770	43,302	43,997
Egypt—						
Ilmenite .. ..	542	1,045	—	200	—	—
Rutile .. ..	33	6	—	—	—	—
Malagasy Republic—						
Ilmenite .. ..	6,090	1,828	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Ilmenite .. ..	—	—	—	16,245	—	—
Rutile .. ..	—	—	—	485	—	—
United States—						
Ilmenite (d) .. ..	861,945	834,903	873,669	831,470	774,960	787,390
Brazil—						
Ilmenite (c) .. ..	13,321	14,730	17,598	19,962	<i>n.a.</i>	<i>n.a.</i>
Rutile .. ..	33	280	113	9	<i>n.a.</i>	<i>n.a.</i>
Japan (e)—						
Ilmenite .. ..	5,676	6,664	<i>r</i> 5,778	4,002	3,095	3,145
<b>WORLD'S TOTAL*—</b>						
Ilmenite .. ..	3,200,000	3,500,000	3,700,000	3,900,000	5,000,000	5,100,000
Rutile .. ..	250,000	294,000	305,000	365,000	410,000	417,000

\*Excluding the U.S.S.R.

(a) Exports.

(b) Production of titanium dioxide slag (70–72% TiO<sub>2</sub>) at Sorel was as follows (long tons):

1966—468,547; 1967—537,906; 1968—600,773; 1969—669,000; 1970—754,200 (766,300 tonnes).

(c) Comissao Nacional de Energie Nuclear only.

(d) Contains a mixed product containing ilmenite, leucoxene and rutile.

(e) Production of metal (commercial titanium sponge) was as follows (long tons):

1966—6,330; 1967—7,716; 1968—5,341; 1969—6,342; 1970—9,084 (9,230 tonnes).

## EXPORTS OF TITANIUM MINERALS, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ferro-titanium .. .. .	1,085	977	1,456	1,282	1,543	1,568
Sierra Leone—						
Rutile concentrates .. .. .	7	18,918	5,629	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Titanium dioxide slag (70% TiO <sub>2</sub> ) .. .. .	(a)	(a)	(a)	(a)	(a)	(a)
Ceylon—						
Ilmenite .. .. .	40,549	52,298	73,430	83,362	76,849	78,082
India—						
Ilmenite .. .. .	31,569	20,607	47,759	72,836	53,199	54,053
Malaysia (West)—						
Ilmenite .. .. .	116,386	89,372	123,838	130,533	219,089	222,605
Singapore—						
Titanium oxide .. .. .	136	180	207	318	305	310
Australia—						
Rutile .. .. .	231,289	258,791	284,995	299,113	368,289	374,200
Ilmenite (c) .. .. .	356,462	384,300	395,911	566,520	647,060	657,445
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Titanium oxide .. .. .	3,897	5,884	6,878	5,283	23,130	23,501
do, extended .. .. .	9,764	9,653	10,402	10,813	7,774	7,899
Finland—						
Ilmenite .. .. .	49,864	39,792	45,164	12,816	24,277	24,667
Titanium oxide .. .. .	21,109	5,042	4,216	3,483	3,526	3,583
France—						
Titanium minerals .. .. .	555	25	144	127	137	139
Ferro-titanium .. .. .	2,228	2,265	2,788	3,462	3,235	3,287
Titanium oxide .. .. .	5,780	13,589	10,012	9,689	14,341	14,571
do, extended .. .. .	26,309	27,625	47,646	54,453	58,491	59,430
Germany (Federal)—						
Titanium minerals .. .. .	619	162	681	520	145	147
Titanium oxide .. .. .	28,864	26,683	29,667	42,634	41,254	41,916
do, extended .. .. .	49,006	57,458	68,019	63,813	76,232	77,455
Italy—						
Titanium oxide .. .. .	18,919	17,381	21,590	16,612	18,885	19,188
Netherlands—						
Titanium oxide .. .. .	10,557	8,900	14,390	21,190	19,964	20,284
do, extended .. .. .	564	436	43	355	718	730
Norway—						
Ilmenite .. .. .	344,517	344,238	389,733	448,048	523,722	532,126
Rutile .. .. .						
Titanium oxide, extended						
Titanium oxide, extended	7,865	6,584	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Spain—						
Ilmenite .. .. .	9,744	6,200	6,348	3,445	—	—
Titanium oxide .. .. .	1,587	4,788	3,142	655	2,832	2,878
Sweden—						
Titanium minerals .. .. .	28	—	24	1,519	303	308
Titanium oxide .. .. .	66	45	32	10	10	10
do, extended .. .. .	—	—	—	443	407	414
United States—						
Ores and concentrates .. .. .	1,161	2,703	3,784	1,271	982	998
Titanium metal (b) .. .. .	1,547	1,276	2,458	2,502	2,583	2,624
Titanium oxide and pigments .. .. .	24,328	23,272	27,050	21,880	23,849	24,232

(a) Information not available. Most of the titanium dioxide slag produced in Canada (figures on page 363) is believed to be exported.

(b) Including alloys and scrap.

(c) Includes leucoxene.

EXPORTS OF TITANIUM MINERALS, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Brazil—						
Titanium minerals ..	9	—	—	1,174	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Titanium sponge metal	4,474	5,310	3,416	4,620	4,289	4,358
Titanium oxide.. ..	37,148	27,306	34,851	41,022	36,607	37,194

## IMPORTS OF TITANIUM MINERALS, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ilmenite . . . . .	244,947	250,016	249,686	255,903	340,067	345,525
Rutile . . . . .	16,953	16,926	21,149	43,993	49,079	49,867
Titanium metal . . . . .	1,865	861	2,419	2,693	2,607	2,649
Titanium oxide . . . . .	2,782	5,566	4,430	2,454	4,756	4,832
Canada—						
Titanium metal . . . . .	1,267	1,935	208	339	258	262
Titanium oxide . . . . .	4,453	1,443	2,132	2,236	2,483	2,523
do, extended . . . . .	8,727	8,717	8,658	7,725	7,298	7,415
Hong Kong—						
Titanium oxide . . . . .	2,456	2,707	3,218	3,428	3,380	3,434
India—						
Rutile . . . . .	998	640	30	—	—	—
Titanium oxide (b) . . . . .	3,820	4,752	4,650	5,892	6,321	6,423
Malaysia (West)—						
Titanium oxide . . . . .	1,400	1,332	1,502	1,564	1,821	1,850
Singapore—						
Titanium oxide . . . . .	744	899	1,276	1,644	2,366	2,404
Australia (a)—						
Titanium oxide . . . . .	1,464	1,103	1,173	1,192	1,010	1,026
New Zealand (a)—						
Titanium oxide . . . . .	1,639	654	566	1,100	<i>n.a.</i>	<i>n.a.</i>
Irish Republic—						
Titanium oxide . . . . .	1,750	2,412	2,598	3,213	3,151	3,202
<b>OTHER COUNTRIES</b>						
Austria—						
Ferro-titanium . . . . .	226	163	182	215	243	247
Titanium oxide . . . . .	5,153	5,674	6,257	6,443	7,149	7,264
Belgium-Luxemburg						
E.U.—						
Titanium minerals . . . . .	1,532	14,642	32,626	46,562	60,975	61,954
Ferro-titanium . . . . .	143	94	209	223	303	308
Titanium oxide . . . . .	10,137	11,473	9,537	10,575	9,996	10,157
do, extended . . . . .	2,417	3,379	4,060	3,811	5,415	5,502
Denmark—						
Titanium oxide . . . . .	5,855	5,860	6,048	6,816	7,846	7,972
do, extended . . . . .	102	88	84	49	31	31
Finland—						
Titanium oxide . . . . .	756	10	22	47	115	117
France—						
Titanium minerals . . . . .	108,771	97,689	132,933	136,539	124,831	126,834
Titanium metal . . . . .	332	487	482	556	1,078	1,095
Titanium oxide . . . . .	17,033	14,102	17,603	19,619	18,594	18,892
do, extended . . . . .	3,332	5,702	3,164	4,668	8,451	8,587
Germany (Federal)—						
Ilmenite . . . . .	227,078	212,694	223,997	319,523	357,382	363,117
Other titanium minerals	138,689	155,787	183,444	234,588	210,408	213,785
Titanium metal . . . . .	1,030	1,193	1,302	2,158	3,029	3,078
Titanium oxide . . . . .	3,072	2,435	3,029	7,771	15,270	15,515
do, extended . . . . .	9,391	8,667	12,550	15,670	12,966	13,174
Greece—						
Titanium oxide . . . . .	2,082	2,379	2,716	3,132	3,509	3,565

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.



## IMPORTS OF TITANIUM MINERALS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iceland—						
Titanium oxide, extended	1	39	<i>n.a.</i>	—	<i>n.a.</i>	<i>n.a.</i>
Italy—						
Titanium minerals ..	113,085	104,718	135,235	94,777	105,821	107,519
Ferro-titanium ..	607	502	626	987	1,481	1,505
Titanium oxide ..	17,840	21,012	23,842	29,237	32,892	33,420
do, extended ..	76	76	163	153	149	151
Netherlands—						
Ferro-titanium ..	68	38	62	89	56	57
Titanium oxide ..	1,794	2,491	4,186	5,527	5,864	5,958
do, extended ..	13,868	16,545	14,779	16,717	15,372	15,619
Norway—						
Titanium oxide ..	—	1,105	949	1,830	1,273	1,294
do, extended ..	3,902	3,932	5,253	5,316	5,089	5,171
Poland—						
Titanium oxide ..	6,570	8,542	10,471	10,083	12,201	12,397
Portugal—						
Rutile ..	549	343	262	113	425	432
Titanium oxide ..	2,394	2,595	3,064	3,498	4,077	4,142
Spain—						
Ilmenite ..	7,334	2,718	23,476	17,453	12,448	12,648
Titanium oxide ..	5,244	5,491	5,231	8,067	6,339	6,441
Sweden—						
Titanium minerals ..	4,468	2,747	2,619	3,408	3,450	3,505
Ferro-titanium ..	1,423	1,055	1,261	1,131	1,731	1,759
Titanium oxide ..	11,734	7,829	5,551	6,857	6,175	6,274
Switzerland—						
Titanium oxide ..	6,872	7,211	8,828	8,777	8,594	8,732
Yugoslavia—						
Rutile ..	1,840	1,672	989	1,743	1,404	1,427
Titanium oxide ..	2,700	3,863	4,521	5,040	5,547	5,636
Algeria—						
Titanium oxide ..	180	234	217	785	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Titanium oxide ..	152	367	658	669	649	659
do, extended ..	359	191	233	245	322	327
Tunisia—						
Titanium oxide ..	258	345	355	308	163	166
Mexico—						
Titanium oxide ..	102	17	46	59	12	12
United States—						
Ilmenite (a) ..	166,553	185,630	219,740	282,650	113,113	114,928
Rutile ..	135,251	149,196	155,684	182,949	217,203	220,688
Titanium metal ..	<i>r</i> 5,339	6,379	<i>r</i> 3,398	5,898	6,335	6,437
Ferro-titanium ..	—	—	177	492	65	66
Titanium compounds ..	( <i>b</i> ) 42,846	( <i>b</i> ) 41,763	( <i>b</i> ) 47,611	( <i>b</i> ) 47,583	( <i>b</i> ) 53,755	( <i>b</i> ) 54,618
Argentina—						
Titanium oxide ..	6,107	2,057	1,083	949	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
Titanium oxide ..	9,764	9,319	15,065	15,956	18,018	18,307
Chile—						
Titanium oxide ..	1,983	2,090	2,502	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Titanium oxide ..	1,602	896	1,860	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Titanium oxide ..	1,415	—	1,372	1,277	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Titanium oxide ..	312	533	621	694	<i>n.a.</i>	<i>n.a.</i>
do, extended ..	2,679	4,099	4,556	4,336	<i>n.a.</i>	<i>n.a.</i>

 (a) Including titanium dioxide slag (70% TiO<sub>2</sub>) imported from Canada.

(b) Dioxide only.

## IMPORTS OF TITANIUM MINERALS, ETC. (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Formosa—						
Titanium oxide ..	2,291	2,695	<i>n.a.</i>	4,568	5,643	5,734
Iran (a)—						
Titanium oxide ..	642	919	1,234	1,221	1,963	1,994
Israel—						
Titanium oxide ..	1,581	1,293	2,142	2,369	2,430	2,469
Japan—						
Ilmenite... ..	319,820	269,288	358,176	403,115	578,979	588,270
Titanium oxide..	716	3,279	5,594	4,125	6,059	6,156
Korea (South)—						
Titanium oxide ..	1,651	2,110	3,107	4,149	4,150	4,217
Philippine Republic—						
Titanium oxide..	2,921	3,313	3,749	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do, extended ..	1,641	2,169	2,190	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Syria—						
Titanium oxide ..	126	285	221	669	311	316
Turkey—						
Titanium oxide ..	2,782	2,771	3,827	4,028	<i>n.a.</i>	<i>n.a.</i>
Titanium minerals ..	<i>n.a.</i>	383	165	220	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.

# TUNGSTEN

## PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES

Producing Country and Description	Long tons Tonnes						Estimated WO <sub>3</sub> Content					Long tons Tonnes		
	1966	1967	1968	1969	1970	1970	1966	1967	1968	1969	1970	1970	1970	
<b>COMMONWEALTH COUNTRIES</b>														
United Kingdom—														
Concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10	14	14
Nigeria—														
Wolfram ..	1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	1	1
Tanzania—														
Wolfram ..	11	47	31	13	14	14	7	28	19	8	8	8	8	8
Uganda—														
Wolfram ..	117	131	n.a.	n.a.	n.a.	n.a.	78	88	94	66	86	86	86	87
Canada (a)—														
Concentrates	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,878	164	1,607	1,813	1,720	1,720	1,748	1,748
Hong Kong—														
Wolfram ..	8	4	1	—	—	—	5	3	1	—	—	—	—	—
India—														
Concentrates	24	28	38	40	34	35	15	18	24	25	22	22	22	22
Malaysia (West)—														
Wolfram ..	6	13	98	46	132	134	4	9	69	32	92	92	94	94
Scheelite	—	9	(b) 7	1	1	1	—	6	5	1	1	1	1	1
Australia—														
Wolfram ..	497	450	559	861	1,163	1,182	365	330	391	616	824	824	837	837
Scheelite	1,308	1,202	1,465	1,469	1,020	1,036	940	860	970	1,050	724	724	736	736
New Zealand—														
Scheelite	3	16	19	8	n.a.	n.a.	2	10	12	5	6	6	6	6
TOTAL							3,310	1,520	3,140	3,950	3,498	3,498	3,554	3,554
<b>OTHER COUNTRIES</b>														
Austria—														
Concentrates ..	121	143	247	200	157	160	81	97	174	140	105	105	107	107

(a) Shipments (chiefly scheelite).

(b) Exports.

PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES (cont.)

Producing Country and Description	Long tons					Tonnes						
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970		
	Estimated WO <sub>3</sub> Content											
OTHER COUNTRIES (cont.)												
France—Concentrates ..	22	30	25	131	104	106	19	20	16	88	72	73
Italy—Concentrates ..	1	1	1	—	—	—	1	1	1	—	—	—
Portugal—Scheelite ..	1,601	1,842	2,361	2,253	2,491	2,531	1,180	1,360	1,716	1,652	1,831	1,860
Spain—Concentrates ..	90	152	254	356	1,082	1,100	60	99	154	251	787	800
U.S.S.R. (b) ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7,300	7,600	7,600	7,600	n.a.	n.a.
Yugoslavia ..	n.a.	n.a.	n.a.	—	—	—	64	n.a.	n.a.	—	—	—
Congo (Kinshasa)—Concentrates ..	n.a.	n.a.	70	131	333	339	111	65	46	85	216	220
Tin-tungsten ore ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	208	371	400	210	220	228
Rwanda and Burundi—Concentrates ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	6	16	32	41	4	4
South Africa—Concentrates ..	7	23	47	60	6	6	5	16	32	41	4	4
South West Africa—Scheelite ..	1	n.a.	n.a.	n.a.	n.a.	n.a.	1	n.a.	n.a.	n.a.	n.a.	n.a.
Tin-wolfram concentrates Mexico ..	607	n.a.	n.a.	n.a.	n.a.	n.a.	165	n.a.	n.a.	n.a.	n.a.	n.a.
United States—Concentrates (a) ..	7,957	8,114	9,557	8,824	9,380	9,530	4,775	4,868	5,794	5,294	5,624	5,714

(a) Shipments from mine.

(b) United States Bureau of Mines' estimate.

PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES (cont.)

Producing Country and Description	Long tons					Tonnes					
	1966	1967	1968	1969	1970	Estimated WO <sub>3</sub> Content					
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	
<b>OTHER COUNTRIES</b> (cont.)											
Argentina— Concentrates .. ..	130	201	354	277	111	113	133	234	180	171	174
Bolivia (a)— Concentrates .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,555	2,217	2,264	2,333	2,370
Brazil— Wolfram and scheelite ..	494	589	n.a.	n.a.	n.a.	n.a.	297	475	998	1,161	1,180
Peru— Concentrates .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(c) 387	(c) 687	(c) 855	1,026	1,042
Burma— Tungsten concentrates ..	44	93	139	110	90	91	26	82	66	54	55
Tin-wolfram concentrates	367	185	515	452	719	731	135	200	180	280	290
China— Concentrates (b) .. ..	15,000	15,000	15,000	15,000	15,000	15,000	9,000	9,000	9,000	9,000	9,000
Japan— Concentrates .. ..	576	679	923	1,074	1,150	1,170	407	485	770	826	839
Korea— South— Concentrates .. ..	3,629	3,586	3,837	3,435	3,968	4,032	2,000	2,300	2,400	2,756	2,800
North— Concentrates (b) .. ..	4,000	4,500	4,500	4,500	n.a.	n.a.	2,000	2,000	2,000	n.a.	n.a.
Thailand— Concentrates .. ..	511	825	950	1,220	1,356	1,378	331	536	793	882	896
TOTAL .. ..							30,000	32,000	35,000	37,000	38,000
WORLD'S TOTAL .. ..							33,000	34,000	38,000	40,000	41,000

(a) Exports.

(b) Estimated.

(c) Recoverable.

## EXPORTS OF TUNGSTEN, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Tungsten ore .. ..	—	5	—	—	560	569
Ferro-tungsten .. ..	1,175	1,176	1,366	1,638	2,258	2,294
Tungsten metal, etc. ..	96	87	42	102	151	153
Tanzania—						
Wolfram ore .. ..	11	46	31	20	19	19
Uganda—						
Wolfram ore .. ..	104	145	100	173	220	224
Hong Kong—						
Tungsten ore .. ..	13	5	2	—	—	—
India—						
Wolfram ore .. ..	1	—	—	—	—	—
Malaysia (West)—						
Wolfram .. ..	19	36	36	221	169	172
Scheelite .. ..	—	2	7	4	—	—
Australia (a)—						
Wolfram ores and concentrates .. ..	560	472	362	679	979	994
(WO <sub>3</sub> content) .. ..	345	343	252	498	655	665
Scheelite ores and concentrates .. ..	1,300	1,206	1,248	1,771	1,408	1,431
(WO <sub>3</sub> content) .. ..	884	788	850	1,200	994	1,010
OTHER COUNTRIES						
Austria—						
Ore .. ..	99	161	274	235	169	172
Belgium-Luxemburg						
E.U.—						
Ferro-tungsten .. ..	—	35	40	12	43	44
France—						
Tungsten ore .. ..	3	32	1	—	123	125
Ferro-tungsten .. ..	451	313	254	484	259	263
Tungsten metal, etc. ..	260	230	331	296	241	245
Germany (Federal)—						
Tungsten metal, etc. ..	674	334	296	312	494	502
Netherlands—						
Ore .. ..	218	245	266	119	118	120
Portugal—						
Tungsten ores .. ..	1,134	1,304	1,579	1,560	1,701	1,728
do. residues .. ..	116	127	56	131	127	129
Ferro-tungsten .. ..	267	371	297	370	269	273
Spain—						
Tungsten ore .. ..	73	184	146	401	658	669
Sweden—						
Ore .. ..	24	43	440	99	274	279
Tungsten metal, etc. ..	75	190	110	129	74	75
Ferro-tungsten .. ..	147	104	112	1	1	1
Congo (Kinshasa) (c)—						
Tungsten ores (b) .. ..	270	98	180	160	370	376
South Africa—						
Tungsten ore .. ..	4	39	29	64	10	10
South West Africa—						
Tin-tungsten ore .. ..	621	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Tungsten ore and concentrates .. ..	224	256	412	496	452	459
(WO <sub>3</sub> content) .. ..	85	185	260	278	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended June 30 of that stated.

(b) Estimated.

(c) Including Rwanda and Burundi.

## EXPORTS OF TUNGSTEN, ETC. (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States—						
Ore and concentrates ..	88	843	539	6,187	16,846	17,116
Tungsten metal, alloys and scrap .. ..	114	300	265	597	750	762
Tungsten powder ..	18	23	21	29	181	184
Argentina—						
Tungsten ore .. ..	49	98	207	99	47	48
Bolivia—						
Tungsten ore ( <i>WO<sub>3</sub> content</i> ) ..	1,555	1,919	2,200	2,300	2,300	2,400
Brazil—						
Tungsten ores .. ..	335	413	660	1,386	1,614	1,640
Peru—						
Tungsten ore and con- centrates ( <i>WO<sub>3</sub></i> <i>content</i> ) .. ..	425	730	854	774	<i>n.a.</i>	<i>n.a.</i>
Burma—						
Ore and concentrates ..	187	70	109	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tin-tungsten ores ..	246	145	30	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Tungsten metal ..	84	28	23	34	50	51
Korea (South)—						
Tungsten ore .. ..	3,701	3,927	3,562	3,653	8,159	8,290
Thailand—						
Tungsten ore .. ..	804	844	806	559	1,133	1,151

## IMPORTS OF TUNGSTEN, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Tungsten ores .. ..	5,066	5,515	4,603	7,381	10,383	10,550
Tungsten metal, etc. ..	51	46	64	22	75	76
Ferro-tungsten .. ..	102	217	196	94	218	221
Canada—						
Ores and concentrates—						
(W content) .. ..	234	104	59	190	82	83
Ferro-tungsten .. ..	86	86	53	94	89	91
India—						
Tungsten ore .. ..	—	184	203	169	259	263
Australia (b)—						
Tungsten metal .. ..	18	13	13	15	18	18
OTHER COUNTRIES						
Austria—						
Tungsten ore .. ..	3,494	2,616	2,354	3,149	3,644	3,703
Tungsten metal, etc. ..	24	83	89	66	225	229
Ferro-tungsten .. ..	59	—	10	79	20	20
Belgium-Luxemburg						
E.U.—						
Tungsten ore .. ..	86	58	106	36	123	125
Ferro-tungsten .. ..	22	33	10	25	40	41
France—						
Tungsten ore .. ..	2,430	1,942	1,578	2,703	2,633	2,675
Tungsten metal, etc. ..	73	77	54	65	143	145
Germany (Federal)—						
Tungsten ore .. ..	5,228	4,411	5,486	8,802	6,836	6,946
Tungsten metal, etc. ..	1,156	614	681	630	773	785
Italy—						
Tungsten ore .. ..	45	45	54	59	136	138
Tungsten metal, etc. ..	73	79	82	57	66	67
Ferro-tungsten .. ..	178	165	595	367	215	219
Netherlands—						
Tungsten ore .. ..	431	216	215	367	372	378
Ferro-tungsten .. ..	4	3	2	5	17	17
Poland—						
Tungsten concentrates ..	2,908	2,406	3,199	2,873	3,298	3,351
Sweden—						
Tungsten ore .. ..	1,873	900	1,900	2,401	3,479	3,535
Tungsten metal, etc. ..	151	55	37	68	113	115
Ferro-tungsten .. ..	709	380	272	655	652	663
U.S.S.R. (a)—						
Tungsten concentrates	3,000	600	n.a.	n.a.	n.a.	n.a.
Yugoslavia—						
Tungsten metal, etc. ..	40	11	6	16	20	20
Ferro-tungsten .. ..	36	87	139	185	194	197
United States—						
Tungsten ore .. ..	3,346	1,280	1,276	1,210	955	970
(WO <sub>3</sub> content)	1,919	759	779	671	573	582
Tungsten metal and carbide .. ..						
(W content)	2	5	7	9	32	33
Ferro-tungsten .. ..	169	n.a.	n.a.	n.a.	n.a.	n.a.
Tungsten ingots, bars, scrap, etc. .. ..	182	62	18	19	51	52
Japan—						
Tungsten ore .. ..	2,710	4,436	2,835	4,788	6,063	6,160
Tungsten metal .. ..	2	37	43	66	123	125
Ferro-tungsten .. ..	58	183	25	46	373	379

(a) Imports from China.

(b) Years ended June 30 of that stated.



**URANIUM MINERALS**  
**PRODUCTION OF URANIUM MINERALS**  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada (a) .. .. .	2,977	2,830	2,802	2,919	3,036	3,085
	£ 18,058,024	17,898,304	20,151,307	19,141,874	20,057,000	20,057,000
<b>OTHER COUNTRIES</b>						
France .. .. .	1,121	1,208	1,152	1,246	1,275	1,295
Portugal (b) .. .. .	35	79	79	79	n.a.	n.a.
Spain (b) .. .. .	r 70	r 83	r 60	86	n.a.	n.a.
Gabon .. .. .	(b) 400	500	472	491	371	377
Malagasy Republic (c) ..	84	64	21	—	—	—
South Africa .. .. .	2,489	2,544	2,932	3,002	3,118	3,168
	£ b26,000,000	b27,000,000	b30,000,000	b31,000,000	b31,000,000	b31,000,000
United States .. .. .	7,259	6,909	9,342	9,537	9,670	9,825
	£ 54,000,000	b53,000,000	b70,000,000	b61,000,000	b59,000,000	b59,000,000
Argentina .. .. .	—	23	25	41	n.a.	n.a.
<b>WORLD'S TOTAL (b) ..</b>	<b>22,000</b>	<b>21,000</b>	<b>24,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,500</b>

(a) Producers' shipments.

(b) Estimated.

(c) Uranium content of uranothorianite.

Uranium is known to have been produced in the U.S.S.R., in several Eastern European countries, Finland, Italy, Sweden, Western Germany, Mozambique, China, India and elsewhere. An allowance has been made for these countries in the world's total.

EXPORTS OF URANIUM MINERALS, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada— Ores and concentrates £	12,061,692	8,059,006	10,046,635	9,445,000	10,389,000	10,389,000
<b>OTHER COUNTRIES</b>						
Gabon— Concentrates ..	1,422	1,376	1,119	1,095	1,060	1,077
Malagasy Republic— Uranothorianite ..	353	302	55	—	—	—
United States— Ores, concentrates and compounds ..	21	—	—	47	19	19
Metal and alloys ..	2	—	—	—	2	2

IMPORTS OF URANIUM MINERALS, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada— Radium and compounds .. £	118,076	32,406	38,542	5,000	14,000	14,000
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.— Ore .. .. .	—	—	6	10	10	10
France— Ore .. .. .	1,714	1,914	2,096	1,174	1,444	1,467
Germany (Federal)— Ore .. .. .	—	—	—	10	3	3
United States— Concentrates (U <sub>3</sub> O <sub>8</sub> content) ..	1,829	1,288	400	1,300	590	600

**VANADIUM**  
**PRODUCTION OF VANADIUM ORES\***  
*(Metal content)*

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
Finland .. .. .	955	1,154	1,179	1,325	1,294	1,315
France (a) .. .. .	71	95	69	96	89	90
Norway (d) .. .. .	700	700	900	900	964	980
South Africa(b) .. .. .	1,526	1,888	2,017	5,443	7,117	7,231
South West Africa .. .. .	1,208	(d) r 960	(d) 500	(d) 400	(d) 400	(d) 400
United States (c) .. r	4,612	r 4,431	r 5,788	4,979	4,749	4,825
<b>WORLD'S TOTAL ..</b>	<b>9,100</b>	<b>9,200</b>	<b>10,500</b>	<b>13,000</b>	<b>14,700</b>	<b>14,900</b>

\*Including, and chiefly consisting of, vanadium recovered as a by-product of other mining and smelting operations

(a) By-product vanadium from aluminium plants.

(b) Vanadium in pentoxide and ammonium vanadate produced; together with an estimate of the vanadium content of slag exported, as follows (long tons): 1969—2,883; 1970—4,738 (4,814 tonnes).

(c) Recoverable.

(d) Estimated.

**EXPORTS OF VANADIUM, ETC.**

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Ferro-vanadium ..	61	41	42	55	55	56
<b>OTHER COUNTRIES</b>						
Finland— Oxide .. .. .	2,098	2,452	2,532	2,735	2,754	2,798
France— Ferro-vanadium	167	244	66	304	145	147
Germany (Federal) Ferro-vanadium	n.a.	542	793	654	631	641
Italy— Ferro-vanadium ..	5	—	1	41	20	20
Norway— Ferro-vanadium ..	22	175	630	647	510	518
Sweden— Ferro-vanadium ..	193	172	371	288	363	369
South Africa— Oxide .. .. .	2,662	2,713	3,267	4,060	4,171	4,238
Ammonium vanadate ..	57	43	614	38	55	56
Vanadiferous slag (b) ..	—	—	—	20,595	33,840	34,381
South West Africa— Concentrates .. .. .	12,286	n.a.	n.a.	1,121	2,414	2,453
(V content) (a) .. .. .	1,000	n.a.	n.a.	100	200	200
United States— Ore, concentrates, oxide, etc. (V content) .. r	791	r 703	r 413	230	940	955
Ferro-vanadium ..	430	314	247	575	1,923	1,954

(a) Estimated.

(b) Believed to contain about 14 per cent vanadium.

## IMPORTS OF VANADIUM, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom— Ferro-vanadium ..	81	141	482	788	1,315	1,336
Canada— Ferro-vanadium ..	427	346	237	349	168	171
OTHER COUNTRIES						
Belgium-Luxemburg E.U.— Ferro-vanadium ..	13	10	23	32	49	50
Oxide .. ..	452	594	1,015	937	1,275	1,296
France— Oxide .. ..	772	1,206	746	1,130	1,327	1,348
Germany (Federal)— Ferro-vanadium ..	124	387	970	687	906	921
Oxide .. ..	193	696	851	1,145	1,255	1,275
Hungary— Ferro-vanadium ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	149	209	212
Italy— Ferro-vanadium ..	334	616	254	352	442	449
Oxide .. ..	247	231	109	186	169	172
Netherlands— Ferro-vanadium ..	15	8	3	5	3	3
Sweden— Ferro-vanadium ..	359	173	372	447	521	529
Oxide etc. .. ..	745	657	907	959	930	945
Mexico— Ferro-vanadium ..	262	156	328	192	199	202
United States— Ore .. ..	524	213	1,926	—	—	—
( <i>V content</i> ) .. ..	64	<i>r</i> 37	<i>r</i> 28	—	—	—
Japan— Oxide .. ..	1,586	1,208	1,193	2,145	2,763	2,807

**VERMICULITE  
PRODUCTION OF VERMICULITE**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	75	247	275	764	1,642	1,668
Tanzania .. .. .	261	90	125	125	148	150
India .. .. .	492	312	2,311	3,918	716	727
<b>OTHER COUNTRIES</b>						
South Africa .. .. .	101,546	99,898	108,440	126,753	119,971	121,896
United States (a) .. .. .	234,215	227,679	258,926	276,800	254,500	258,600
Argentina .. .. .	4,096	2,858	4,255	4,480	4,600	4,700
<b>WORLD'S TOTAL*</b> .. .. .	<b>341,000</b>	<b>333,000</b>	<b>373,000</b>	<b>404,000</b>	<b>382,000</b>	<b>388,000</b>

\*Excluding vermiculite produced in the U.S.S.R. and Brazil.

(a) Sold or used by producers.

**EXPORTS OF VERMICULITE**

Exporting Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
South Africa .. .. .	87,768	94,059	103,165	109,477	103,593	105,255

**IMPORTS OF VERMICULITE**

Importing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) .. .. .	24,354	26,977	24,772	24,406	28,544	29,002
Canada .. .. .	25,740	26,197	24,642	28,088	25,085	25,488
Australia (c) .. .. .	2,544	2,215	3,284	3,541	3,702	3,762
<b>OTHER COUNTRIES</b>						
France (b) .. .. .	21,384	36,363	31,526	42,303	54,034	54,901
Greece .. .. .	63	63	3	22	77	78
Mexico .. .. .	568	367	474	503	n.a.	n.a.
United States (a) .. .. .	7,529	14,252	9,443	5,801	10,788	10,961
Venezuela .. .. .	446	218	515	380	n.a.	n.a.

(a) Exports from South Africa to country stated.

(b) May include perlite, etc.

(c) Years ended June 30 of that stated.

**ZINC**  
**PRODUCTION OF ZINC ORE**  
*(Metal content)*

Producing Country					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Zambia (c) .. ..	41,654	43,781	51,547	49,373	52,612	53,456
Canada (h) .. ..	860,809	992,369	1,035,171	1,078,237	1,081,516	1,098,874
India .. ..	4,809	5,187	6,858	7,290	8,287	8,420
Australia .. ..	369,341	400,527	415,722	501,848	481,336	489,061
<b>TOTAL .. ..</b>	<b>1,277,000</b>	<b>1,416,000</b>	<b>1,516,000</b>	<b>1,624,000</b>	<b>1,624,000</b>	<b>1,650,000</b>
Irish Republic .. ..	22,670	35,490	49,730	95,940	94,970	96,494
<b>OTHER COUNTRIES</b>						
Austria .. ..	10,317	10,984	12,401	14,009	15,459	15,707
Bulgaria .. ..	65,400	66,800	62,600	64,200 (e)	79,000 (e)	80,000
Finland (b) .. ..	53,516	59,839	64,366	69,682	61,620	62,609
France .. ..	22,926	24,279	21,462	19,658	18,282	18,575
Germany (Federal) (d) ..	97,098	104,882	108,649	108,990	111,985	113,782
Germany (East) (g) ..	12,000	12,000	12,000	12,000 (e)	10,000 (e)	10,000
Greece .. ..	10,216	11,552	10,441	9,239	8,100	8,200
Hungary .. ..	(g) 3,200	6,000	8,126	9,007	n.a.	n.a.
Italy .. ..	111,571	122,237	136,267	130,210	107,900	109,600
Norway .. ..	13,101	11,980	11,654	11,011	10,200	10,400
Poland .. ..	147,900	152,700	162,000 (g)	164,000	205,700	209,000
Portugal .. ..	2,308	422	355	1,074	1,581	1,606
Spain .. ..	56,321	56,962	73,420	83,016	93,883	95,390
Sweden .. ..	82,219	80,529	80,037	88,674	164,854	167,500
U.S.S.R. (c) (e) ..	500,000	510,000	530,000	550,000	540,000	550,000
Yugoslavia .. ..	83,895	88,595	93,963	95,173	99,547	101,145
Algeria .. ..	14,900	8,000	18,000	20,700	16,700	16,970
Congo (Kinshasa) ..	113,036	119,604	116,000	95,000	112,000	114,000
Congo (Brazza) ..	6,601	2,337	1,600	4,600	n.a.	n.a.
Morocco .. ..	45,952	38,873	32,767	34,644	15,049	15,290
South West Africa ..	27,796	22,200	22,800	37,500	46,200	46,900
Tunisia .. ..	5,702	4,087	5,020	9,646	12,057	12,251
Guatemala (b) .. ..	490	243	—	900	1,000	1,000
Honduras .. ..	12,197	12,842	14,550	15,573	13,443	13,659
Mexico .. ..	215,718	210,351	236,000	249,000	258,400	262,600
United States (b) ..	511,212	490,547	472,720	493,875	488,189	496,020
Argentina .. ..	26,028	26,820	26,000	31,199	38,400	39,000
Bolivia (a) .. ..	16,438	16,433	11,599	25,885	45,802	46,537
Brazil .. ..	n.a.	1,800	4,700	8,800	n.a.	n.a.
Chile .. ..	2,054	1,105	1,235	1,455	1,300	1,321
Colombia (g) .. ..	295	545	650	423	400	400
Ecuador .. ..	133	158	112	205	123	125
Peru (b) .. ..	279,478	299,985	r 286,802	295,560	311,500	316,500
Burma .. ..	6,000	5,000	r 4,700	4,900	5,000	5,000
China (g) .. ..	100,000	90,000	(g) 100,000	100,000	100,000	100,000
Iran (f) .. ..	(g) 17,000	(g) 24,000	(g) 25,000	(e) 26,000	n.a.	n.a.
Japan .. ..	249,622	258,530	260,169	265,160	275,262	279,679
Korea (South) .. ..	11,500	13,400	19,000	22,000	23,000	23,400
Korea (North) (g) ..	105,000	120,000	120,000	123,000	n.a.	n.a.

- (a) Exports.  
(b) Recoverable.  
(c) Smelter production.  
(d) Excluding zinc in pyrites.  
(e) Estimated.

- (f) Years ended March 20 of year following that stated.  
(g) United States Bureau of Mines' estimate.  
(h) Refined zinc plus recoverable zinc in ores, etc., exported.

PRODUCTION OF ZINC ORE (cont.)

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Philippine Republic ..	1,622	1,462	2,207	3,234	3,141	3,191
Thailand (a) .. ..	2,500	1,400	1,100	700	n.a.	n.a.
Turkey .. ..	3,238	5,734	10,811	16,114	(a) 24,000	(a) 24,000
<b>TOTAL .. ..</b>	<b>3,000,000</b>	<b>3,100,000</b>	<b>3,200,000</b>	<b>3,400,000</b>	<b>3,600,000</b>	<b>3,600,000</b>
<b>WORLD'S TOTAL ..</b>	<b>4,300,000</b>	<b>4,600,000</b>	<b>4,700,000</b>	<b>5,100,000</b>	<b>5,200,000</b>	<b>5,300,000</b>

Zinc ore is also produced in the United Kingdom, Czechoslovakia, Roumania and North Vietnam.

(a) Estimated.

## METAL PRODUCTION OF ZINC

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	99,745	102,675	140,625	148,608	144,282	146,597
Zambia .. .. .	41,654	43,781	51,547	49,373	52,612	53,456
Canada .. .. .	341,612	361,729	381,007	416,384	411,306	417,907
India .. .. .	—	2,944	20,372	22,687	23,040	23,410
Australia .. .. .	194,410	194,472	204,992	242,433	256,478	260,594
<b>TOTAL .. .. .</b>	<b>677,427</b>	<b>704,264</b>	<b>781,828</b>	<b>856,798</b>	<b>887,710</b>	<b>901,960</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	13,977	13,933	15,052	15,500	15,765	16,018
Belgium .. .. .	247,738	223,738	247,148	256,477	237,427	241,237
Bulgaria .. .. .	75,500	72,700	73,900	(d) 76,000	74,900	76,100
Finland .. .. .	—	—	—	1,100	56,000	57,000
France .. .. .	197,400	185,000	204,200	249,500	223,700	227,300
Germany (Federal) .. .. .	173,567	138,596	142,068	144,817	147,851	150,224
Germany (East) (a) .. .. .	12,000	11,000	15,000	15,000	15,000	15,000
Hungary .. .. .	(d) 1,500	n.a.	n.a.	n.a.	n.a.	n.a.
Italy .. .. .	76,901	86,603	110,501	128,262	139,838	142,082
Netherlands .. .. .	40,704	38,000	48,000	45,600	46,000	46,700
Norway .. .. .	50,313	53,935	59,161	57,847	60,400	61,400
Poland .. .. .	190,000	193,000	200,000	204,200	205,700	209,000
Spain .. .. .	52,881	69,295	74,197	79,032	87,693	89,100
U.S.S.R. (a) .. .. .	500,000	510,000	530,000	550,000	561,000	570,000
Yugoslavia .. .. .	50,282	52,344	78,000	80,000	63,995	65,022
Congo (Kinshasa) .. .. .	60,529	60,521	61,584	62,300	62,500	63,500
Mexico .. .. .	70,454	69,741	78,773	86,300	83,300	84,600
United States (b) (c) .. .. .	915,237	838,241	911,510	968,000	857,000	871,000
Argentina .. .. .	21,931	22,626	20,607	24,210	31,000	32,000
Peru .. .. .	62,448	62,351	r 66,958	63,728	69,300	70,400
China (d) .. .. .	90,000	80,000	90,000	90,000	98,000	100,000
Japan .. .. .	437,141	508,066	595,992	700,939	665,570	676,250
Korea (South) .. .. .	1,402	2,419	2,500	2,274	2,300	2,400
Korea (North) (d) .. .. .	75,000	80,000	80,000	60,000	80,000	80,000
<b>TOTAL .. .. .</b>	<b>3,400,000</b>	<b>3,400,000</b>	<b>3,700,000</b>	<b>4,000,000</b>	<b>3,900,000</b>	<b>3,900,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>4,100,000</b>	<b>4,100,000</b>	<b>4,500,000</b>	<b>4,800,000</b>	<b>4,800,000</b>	<b>4,900,000</b>

Zinc is also produced in Czechoslovakia, Roumania and North Vietnam.

(a) Estimated.

(b) In addition secondary zinc recovered was as follows (long tons):

Year	Long tons	Year	Long tons	Tonnes
1966 .. .. .	321,617	1969 .. .. .	333,416	
1967 .. .. .	285,579	1970 .. .. .	315,093	320,147
1968 .. .. .	316,696			

(c) The production by grades (including redistilled secondary) was as follows (long tons):

	1966	1967	1968	1969	1970	1970
A—High grade—Special .. .. .	404,216	390,044	401,481	418,564	359,727	365,497
Ordinary .. .. .	124,834	82,996	104,664	121,780	56,789	57,700
B—Intermediate grade .. .. .	21,031	23,680	50,612	51,054	30,212	30,697
C and D—Brass special .. .. .	92,129	81,321	67,714	79,737		
Selected .. .. .	—	—	—	—	411,487	418,087
E—Prime Western .. .. .	347,370	325,829	358,346	320,943		

(d) United States Bureau of Mines' estimate.



**PRODUCTION OF ELECTROLYTIC ZINC IN CERTAIN COUNTRIES\***

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	341,612	361,729	381,007	416,384	411,306	417,907
Australia (Tasmania) ..	194,410	194,472	204,992	242,433	256,478	260,594
<b>OTHER COUNTRIES</b>						
Austria .. .. .	13,977	13,933	15,052	15,500	15,765	16,018
Norway .. .. .	50,313	53,935	59,161	57,847	60,400	61,400
Poland .. .. .	90,400	92,000	95,100	96,000	100,000	102,000
Congo (Kinshasa) ..	60,529	60,521	61,584	62,300	61,021	62,000
United States .. ..	387,121	331,488	355,594	406,000	353,130	358,794
Japan .. .. .	270,000	306,000	363,000	390,600	364,000	370,500

\*This production is already included in the Metal table.

**PRODUCTION OF ZINC DUST IN CERTAIN COUNTRIES**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	12,183	12,272	14,024	13,628	15,389	15,636
Australia .. .. .	3,299	<i>n.a.</i>	3,057	3,631	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
France .. .. .	4,642	5,120	5,220	7,400	6,700	6,800
Germany (Federal) ..	5,777	3,939	290	—	—	—
United States .. ..	49,540	44,887	54,970	48,746	45,327	46,055
Japan .. .. .	<i>n.a.</i>	14,874	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

**PRODUCTION OF ROLLED ZINC SHEETS, PLATES AND STRIPS  
IN CERTAIN COUNTRIES**

Producing Country	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	26,750	22,859	25,346	26,885	25,214	25,619
<b>OTHER COUNTRIES</b>						
France .. .. .	70,730	76,080	69,480	71,200	64,250	65,280
United States (b) ..	45,914	39,500	42,432	41,554	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	6,699	9,690	30,690	33,668	37,178	37,775

(a) Including wire.

(b) Excluding strip and ribbon zinc re-rolled from scrap originating in fabricating plants operated in connection with zinc rolling-mills, as follows :

Year	Long tons	Year	Long tons	Tonnes
1966 .. .. .	18,804	1969 .. .. .	21,775	
1967 .. .. .	16,671	1970 .. .. .	<i>n.a.</i>	<i>n.a.</i>
1968 .. .. .	19,586			

EXPORTS OF ZINC\*

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore and concentrates ..	10	43	<i>n.a.</i>	<i>n.a.</i>	454	461
Unwrought (a) .. ..	1,099	11,124	22,394	16,153	15,650	15,901
Scrap .. ..	178	649	1,185	611	759	771
Semi-manufactures (a) ..	4,951	4,159	4,527	6,764	6,432	6,535
Oxide .. ..	4,289	3,419	4,566	5,545	5,420	5,507
Lithopone, etc... ..	3,110	2,524	2,064	212	30	30
Nigeria—						
Ore and concentrates ..	1,501	10	<i>n.a.</i>	42	60	61
Zambia—						
Ores and concentrates ..	—	621	—	—	<i>n.a.</i>	<i>n.a.</i>
Unwrought .. ..	40,900	39,183	44,315	52,740	49,549	50,344
Canada—						
Ore ( <i>Zn content</i> ) .. ..	527,966	656,879	764,123	718,450	755,349	767,470
Unwrought .. ..	228,708	265,761	284,560	274,459	313,798	318,834
Scrap (a) .. ..	8,896	7,339	5,587	7,875	6,610	6,714
Hong Kong—						
Scrap .. ..	—	—	143	99	—	—
India (c)—						
Dross, scrap and ashes..	2,212	2,171	628	857	433	440
Semi-manufactures (a) ..	20	38	14	557	2,381	2,419
Zinc white .. ..	372	464	943	931	1,643	1,669
Singapore—						
Unwrought .. ..	84	213	2,201	2,082	1,221	1,240
Semi-manufactures (a) ..	99	1,273	173	129	58	59
Oxide .. ..	245	293	253	205	94	95
Australia (b)—						
Ores and concentrates						
( <i>Zn content</i> ) .. ..	139,386	140,198	171,707	181,991	231,201	234,912
Unwrought .. ..	99,182	(a) 114,038	(a) 89,136	(a) 115,562	(a) 152,272	(a) 154,716
Scrap .. ..	119	—	—	—	—	—
Semi-manufactures .. ..	979	(a) 433	(a) 815	(a) 1,300	(a) 1,067	(a) 1,084
Oxide .. ..	64	188	398	567	1,162	1,181
Irish Republic—						
Ores and concentrates	26,077	33,905	84,098	190,491	191,260	194,330
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. ..	—	—	3	704	1,177	1,196
Unwrought (a) .. ..	3,811	6,614	4,508	1,928	251	255
Scrap .. ..	57	25	62	228	611	621
Lithopone .. ..	1,822	1,912	1,397	1,456	1,251	1,271
Belgium-Luxemburg						
E.U.—						
Ore .. ..	12,556	26,429	49,183	54,891	191,477	194,549
Unwrought .. ..	144,993	134,020	148,970	153,055	135,123	137,291
Scrap .. ..	7,555	7,042	7,959	8,207	8,647	8,786
Semi-manufactures (a) ..	29,494	35,779	40,811	42,528	44,445	45,158
Lithopone, etc... ..	12,098	126	3	17	60	61

\*In these tables the description "unwrought" zinc corresponds to item 686.1 in the Standard International Trade Classification (Revised) and comprises blocks, pigs, slabs, etc. "Semi-manufactures" corresponds to S.I.T.C.(R). 284.0 (8) and 686.2, and includes zinc dust as well as rods, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

EXPORTS OF ZINC (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Denmark—</b>						
Unwrought .. ..	64	98	161	47	104	106
do. alloys .. ..	321	230	876	178	292	297
Scrap .. ..	2,063	3,208	3,270	3,247	2,859	2,905
Semi-manufactures .. ..	14	20	27	19	14	14
<b>Finland—</b>						
Concentrates .. ..	110,765	113,506	123,958	131,480	2,078	2,111
Unwrought .. ..	20	—	—	—	43,536	44,235
<b>France—</b>						
Ore .. ..	233	216	26,801	7,013	4,744	4,820
Unwrought .. ..	19,723	9,891	19,914	19,972	16,167	16,427
do. alloys .. ..	383	2,046	369	87	1,272	1,293
Semi-manufactures (a) .. ..	3,828	3,476	4,437	4,669	7,701	7,825
Oxide .. ..	7,459	7,378	9,751	8,681	24	24
Lithopone, etc. . . . .	1,007	1,533	2,407	3,843	5,537	5,626
<b>Germany (Federal)—</b>						
Ore .. ..	49,993	88,967	114,996	59,374	49,065	49,852
Unwrought (a) .. ..	27,539	28,162	37,195	34,945	53,270	54,125
Scrap (a) .. ..	7,522	4,644	5,592	5,615	5,811	5,904
Semi-manufactures (a) .. ..	8,988	9,379	11,803	11,308	11,672	11,859
Zinc-white, zinc-grey .. ..	10,314	9,223	8,957	9,206	9,847	10,005
Lithopone .. ..	32,768	35,989	38,192	37,344	35,465	36,034
<b>Greece—</b>						
Ore and concentrates .. ..	20,410	23,947	14,835	16,825	21,271	21,612
<b>Italy—</b>						
Ore .. ..	40,503	21,906	48,581	39,060	11,674	11,861
Unwrought .. ..	52	39	880	736	1,855	1,885
Semi-manufactures (a) .. ..	349	403	2,243	1,286	1,948	1,979
Oxide .. ..	1,083	819	907	1,149	565	574
Lithopone, etc. . . . .	3,073	3,078	2,809	2,897	382	388
<b>Netherlands—</b>						
Ore .. ..	4,373	7,603	20,069	22,397	15,914	16,169
Unwrought .. ..	22,825	34,900	32,786	29,538	25,665	26,077
do. alloys .. ..	43	36	157	166	192	195
Scrap (a) .. ..	10,162	7,923	8,392	7,313	6,144	6,243
Semi-manufactures (a) .. ..	1,086	1,117	1,558	989	1,237	1,257
Oxide .. ..	9,469	8,774	10,876	11,067	10,212	10,376
Lithopone, etc. . . . .	12,045	13,270	10,512	10,890	10,949	11,125
<b>Norway—</b>						
Ore .. ..	15,895	14,995	12,883	13,452	11,249	11,430
Unwrought .. ..	39,114	35,552	49,504	41,036	39,562	40,197
do. alloys .. ..	1,096	1,234	3,360	4,512	5,961	6,057
Scrap .. ..	543	401	386	304	172	175
Semi-manufactures (a) .. ..	1,687	1,655	2,015	2,572	2,884	2,930
Zinc-white .. ..	219	180	264	437	454	461
<b>Poland—</b>						
Unwrought and sheets .. ..	71,633	70,912	76,034	83,697	81,683	82,994
Unwrought alloys .. ..	8,765	5,644	6,206	5,887	5,498	5,586
Zinc-white .. ..	5,527	2,984	2,421	1,731	1,895	1,926
<b>Portugal—</b>						
Ore .. ..	5,596	970	—	2,418	3,565	3,622
Zinc-white .. ..	77	102	116	121	112	114
<b>Spain—</b>						
Ore .. ..	6,060	12,418	6,817	12,780	11,411	11,594
Unwrought (a) .. ..	1,915	13,654	21,985	6,499	3,587	3,645
Oxide .. ..	274	444	1,030	1,323	1,212	1,231
<b>Sweden—</b>						
Ore .. ..	158,650	115,931	139,465	157,388	176,664	179,499
Unwrought (a) .. ..	119	306	449	438	405	412
Scrap .. ..	1,392	1,007	1,342	1,403	1,813	1,842
Zinc-white .. ..	646	645	347	344	288	293
Lithopone .. ..	22	10	1	3	37	38

(a) Including alloys.

## EXPORTS OF ZINC (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Switzerland—						
Unwrought and scrap ..	1,647	1,622	1,664	1,699	1,297	1,318
Semi-manufactures (a) ..	37	57	39	47	127	129
Zinc-white .. ..	1	2	9	4	2	2
J.S.S.R.—						
Unwrought .. ..	84,900	72,900	77,500	95,900	93,598	95,100
Yugoslavia—						
Ore .. ..	—	—	13,518	30,434	24,433	24,825
Concentrates .. ..	10,585	2,791	9,059	83	2,163	2,198
Unwrought .. ..	5,241	5,135	30,138	30,016	21,586	21,933
Semi-manufactures ..	11,947	10,483	13,387	19,039	13,147	13,358
Oxide .. ..	797	1,204	988	1,519	1,032	1,049
Lithopone .. ..	2,664	2,451	708	79	8	8
Algeria—						
Ore .. ..	14,763	13,007	21,815	36,993	n.a.	n.a.
Congo (Kinshasa) (c)—						
Ores and concentrates ..	93,400	65,000	71,431	71,500	34,000	35,000
Unwrought .. ..	50,100	56,200	41,200	51,300	72,000	73,000
Congo (Brazza)—						
Ore .. ..	11,546	n.a.	2,613	5	n.a.	n.a.
Morocco—						
Ore .. ..	78,743	85,338	78,496	74,577	36,909	37,501
South Africa—						
Unwrought .. ..	22	18	12	4	5	5
Fume, dust, shavings, etc. .. ..	92	71	82	95	227	231
South West Africa—						
Ores and concentrates (b) .. ..	35,054	n.a.	n.a.	n.a.	n.a.	n.a.
Tunisia—						
Ore .. ..	10,807	13,127	7,283	5,186	12,158	12,353
Guatemala—						
Ore .. ..	1,228	12	44	—	2,157	2,192
Honduras—						
Ore and concentrates ..	9,592	9,725	17,498	25,670	38,119	38,731
Mexico—						
Ores and concentrates	305,076	275,591	195,000	308,891	321,391	326,548
Unwrought .. ..	32,091	32,563	41,498	40,613	37,540	38,142
Oxide .. ..	7,861	7,658	4,359	5,733	5,836	5,930
United States—						
Unwrought .. ..	2,386	15,682	31,616	8,302	258	262
Scrap (b) .. ..	3,990	1,487	2,047	1,776	1,980	2,012
Semi-manufactures (a) ..	5,973	4,439	13,973	26,478	21,889	22,240
Oxide .. ..	7,461	3,071	3,250	3,374	5,648	5,739
Lithopone .. ..	2,694	723	1,161	969	1,376	1,398
Argentina—						
Unwrought .. ..	2	918	1,823	2,509	2,787	2,832
Bolivia—						
Ores (b) .. ..	16,438	16,433	11,599	26,000	45,800	46,500
Chile—						
Concentrates .. ..	n.a.	2,046	n.a.	n.a.	n.a.	n.a.
Peru—						
Ores, etc. (Zn content) ..	212,086	228,631	298,000	246,000	260,000	270,000
Unwrought (Zn content)	47,797	63,892	54,264	57,000	64,000	65,000
Burma—						
Concentrates .. ..	16,040	8,912	6,385	n.a.	n.a.	n.a.
Iran (d)—						
Ore .. ..	76,322	39,488	50,304	52,392	95,103	96,629

(a) Including alloys.

(b) Zn content.

(d) Years ended March 20 following that stated.

(c) Estimated.

## EXPORTS OF ZINC (cont.)

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Unwrought .. ..	58,213	64,713	85,477	93,046	51,754	52,585
Semi-manufactures .. ..	2,161	3,407	2,918	3,796	24,420	24,812
Oxide .. ..	1,137	807	1,834	2,547	715	726
Lithoponc .. ..	323	398	683	292	40	41
Korea (South)—						
Ore .. ..	31,666	21,967	33,537	39,243	38,843	39,466
Philippine Republic—						
Concentrates .. ..	2,400	2,933	4,252	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Ore .. ..	16,335	8,532	18,814	25,161	<i>n.a.</i>	<i>n.a.</i>

IMPORTS OF ZINC\*

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates ..	234,709	254,945	330,530	327,880	295,297	300,036
Unwrought (a) ..	178,698	159,515	168,071	159,602	160,918	163,501
Waste and scrap ..	1,214	3,905	3,452	1,198	427	434
Semi-manufactures (a)	600	587	1,622	1,215	730	742
Oxide ..	302	332	n.a.	n.a.	349	354
Lithopone, etc. . .	1,528	1,389	1,022	3,928	4,768	4,845
Malta—						
Semi-manufactures ..	(£14,222)	(£9,373)	(£2,515)	(£7,627)	(£15,675)	(£15,675)
Ghana—						
Unwrought (a) ..	303	838	18	1,752	944	959
Semi-manufactures (a)	16	40	17	208	312	317
Kenya—						
Unwrought (a) ..	1,166	1,006	1,150	1,413	1,899	1,930
Semi-manufactures (a)	3	23	12	481	991	1,007
Nigeria—						
Unwrought and semi-manufactures (a)	846	2,500	1,701	6,172	4,777	4,854
Tanzania—						
Unwrought (a) ..	1,153	1,154	1,596	1,749	1,743	1,771
Semi-manufactures (a)	15	42	192	204	366	372
Uganda—						
Unwrought ..	1,275	1,229	876	1,605	1,264	1,284
Semi-manufactures (a)	8	—	21	38	42	43
Canada—						
Ore and concentrates (Zn content) ..	(c) 71	(c) 67	(c) 114	(c) 54	(c) 360	(c) 366
Unwrought ..	112	951	1,355	689	329	334
Semi-manufactures ..	1,833	1,671	1,600	1,680	1,291	1,312
Zinc-white ..	1,442	1,521	1,471	2,286	1,950	1,981
Lithopone ..	194	282	360	—	—	—
Barbados—						
Semi-manufactures (a)	2	26	26	37	78	79
Jamaica—						
Semi-manufactures (a)	17	7	29	22	n.a.	n.a.
Trinidad and Tobago—						
Semi-manufactures (a)	21	23	25	17	43	44
Ceylon—						
Unwrought (a) ..	151	546	1,812	1,244	n.a.	n.a.
Semi-manufactures (a)	138	87	57	80	n.a.	n.a.
Cyprus—						
Semi-manufactures (a)	63	208	237	30	6	6
Hong Kong—						
Unwrought (a) ..	3,614	4,398	7,344	8,024	8,820	8,962
Scrap ..	27	100	270	83	88	89
Semi-manufactures (a)	516	350	664	525	523	532
Oxide ..	686	668	1,066	1,006	886	900
Lithopone ..	1,293	593	1,073	1,139	590	600
India (b)—						
Ore and concentrates ..	19,764	512	27,387	39,707	60,149	61,114
Unwrought ..	35,718	54,297	64,963	21,975	62,345	63,345
do. alloys ..	9,636	8,899	21,949	12,644	27,205	27,642
Semi-manufactures (a)	1,956	1,671	1,525	2,469	1,660	1,687
Zinc-white ..	31	46	9	1	—	—
Lithopone ..	802	617	734	1,029	1,224	1,244
Malaysia (West)—						
Ore ..	833	2,251	2,641	2,072	2,631	2,673
Unwrought (a) ..	1,533	1,200	2,000	1,758	1,636	1,662
Semi-manufactures (a)	47	1,204	1,327	1,989	1,883	1,913

\*See footnote on p. 384 concerning the descriptions "unwrought" zinc and "semi-manufactures" used in these tables.

(a) Including alloys.

(c) Including scrap.

(b) Years ended March 31 following that stated.

## IMPORTS OF ZINC (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Singapore—						
Unwrought .. .. .	4,354	4,428	7,115	5,128	8,416	8,552
Semi-manufactures (a)	387	330	1,356	858	839	852
Oxide .. .. .	418	555	682	638	927	942
Sarawak—						
Semi-manufactures (a)	102	69	67	n.a.	n.a.	n.a.
Australia (b)—						
Ore and concentrates ..	5,083	6,210	—	3,251	—	—
Unwrought and semi-manufactures (a) ..	177	198	132	110	204	207
Lithopone .. .. .	927	976	1,081	1,044	830	843
New Zealand (b)—						
Unwrought (a) .. .. .	4,220	3,983	3,578	9,503	n.a.	n.a.
Semi-manufactures (a)	905	787	551	558	n.a.	n.a.
Oxide .. .. .	8	2	16	21	n.a.	n.a.
Lithopone .. .. .	146	117	72	117	n.a.	n.a.
Irish Republic—						
Unwrought (a) .. .. .	3,203	3,603	4,433	4,507	2,724	2,767
Semi-manufactures (a)	200	252	657	852	876	890
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	12,253	13,039	10,052	11,251	5,659	5,750
Unwrought (a) .. .. .	7,182	5,488	6,499	6,748	6,537	6,642
Semi-manufactures (a)	627	626	727	692	1,061	1,078
Zinc-white and zinc-grey .. .. .	477	518	688	700	677	689
Lithopone .. .. .	391	498	312	174	123	125
Belgium-Luxemburg E.U.—						
Ore .. .. .	530,130	517,386	612,283	549,884	608,105	617,863
Unwrought .. .. .	11,447	14,020	19,655	41,001	28,764	29,226
Scrap .. .. .	693	879	1,082	1,348	2,131	2,165
Semi-manufactures (a)	544	921	1,369	1,480	1,620	1,646
Oxide .. .. .	1,862	2,070	2,631	3,833	5,783	5,876
Lithopone, etc. . . .	2,497	4,105	3,555	3,749	3,220	3,272
Denmark—						
Unwrought .. .. .	9,551	8,513	9,897	11,922	13,309	13,523
do. alloys .. .. .	340	333	752	1,164	1,712	1,740
Scrap .. .. .	186	108	88	183	114	116
Semi-manufactures (a)	6,422	7,542	6,645	7,226	7,011	7,124
Zinc-white .. .. .	1,531	1,684	1,597	2,002	2,541	2,582
Lithopone .. .. .	1,756	1,584	1,442	1,398	1,167	1,186
Finland—						
Unwrought (a) .. .. .	6,985	6,629	5,395	9,467	3,112	3,162
Scrap .. .. .	6	6	—	1	—	—
Semi-manufactures (a)	552	600	711	654	656	667
Zinc-white .. .. .	313	326	356	364	258	262
Lithopone .. .. .	1,457	1,119	829	1,024	937	952
France—						
Ore .. .. .	342,758	326,894	355,676	405,962	404,655	411,149
Unwrought .. .. .	24,207	30,064	25,869	25,027	24,377	24,768
Scrap .. .. .	18,430	14,868	18,890	18,148	17,155	17,430
Semi-manufactures (a)	7,912	8,958	7,675	9,249	10,235	10,399
Oxide .. .. .	1,233	1,415	2,270	2,967	3,371	3,425
Lithopone, etc. . . .	17,805	12,092	14,797	12,148	10,743	10,916

(a) Including alloys.

(b) Years ended June 30 of that stated.

## IMPORTS OF ZINC (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Germany (Federal)—						
Ores .. .. .	162,081	147,583	232,295	345,051	358,013	363,758
Unwrought (a) ..	124,797	139,642	184,064	179,594	152,511	154,958
Scrap (a) .. .. .	615	642	803	950	2,448	2,487
Semi-manufactures (a)	18,643	22,028	23,812	26,784	28,773	29,235
Zinc-white .. ..	3,119	2,357	2,774	3,514	3,931	3,994
Lithopone .. .. .	3,098	2,144	2,160	1,693	2,427	2,466
Greece—						
Unwrought .. .. .	7,817	7,375	7,275	10,592	8,184	8,315
Semi-manufactures (a)	149	260	330	240	119	121
Zinc-white .. .. .	340	433	289	396	437	444
Lithopone .. .. .	4,158	4,080	4,075	4,183	4,152	4,219
Hungary—						
Crude .. .. .	14,176	13,086	17,940	19,927	17,541	17,823
Iceland—						
Unwrought (a) ..	15	17	13	16	19	19
Semi-manufactures (a)	56	64	65	67	22	22
Zinc-white .. .. .	13	6	n.a.	n.a.	n.a.	n.a.
Italy—						
Ore .. .. .	4,558	21,079	25,647	59,289	101,927	103,563
Unwrought .. .. .	54,368	56,959	37,243	38,364	43,325	44,020
do. alloys .. .. .		8,005	4,470	6,636	12,075	12,269
Scrap .. .. .	7,002	7,913	6,761	5,898	3,699	3,758
Semi-manufactures (a)	3,312	3,443	3,686	3,497	3,792	3,853
Oxide .. .. .	3,022	2,903	3,235	4,877	6,645	6,752
Lithopone, etc... ..	751	385	991	1,184	2,255	2,291
Netherlands—						
Ore .. .. .	84,376	81,229	94,740	100,539	88,939	90,366
Unwrought .. .. .	14,376	16,110	16,881	16,625	14,004	14,229
do. alloys .. .. .	1,491	1,597	1,860	1,466	1,707	1,734
Scrap .. .. .	1,997	210	548	1,584	1,785	1,814
Semi-manufactures (a)	6,122	6,604	7,916	7,663	7,848	7,974
Oxide .. .. .	1,490	1,661	1,797	2,647	3,337	3,391
Lithopone, etc... ..	1,838	1,354	1,198	1,200	985	1,001
Norway—						
Ore .. .. .	85,712	80,260	111,230	101,730	145,634	147,971
Unwrought .. .. .	1,171	1,571	2,493	4,359	1,703	1,730
Scrap .. .. .	1,366	1,676	2,736	3,647	2,867	2,913
Semi-manufactures (a)	1,906	1,942	1,658	1,083	1,348	1,370
Zinc-white .. .. .	1,112	1,042	643	1,176	1,601	1,627
Lithopone, etc... ..	144	159	145	118	141	143
Poland—						
Concentrates .. ..	99,298	105,580	84,505	82,280	122,075	124,034
Portugal—						
Unwrought and scrap ..	5,006	6,374	6,100	8,038	10,239	10,355
Semi-manufactures ..	254	313	683	643	784	797
Oxide .. .. .	282	195	229	229	260	264
Lithopone .. .. .	2,204	2,296	2,316	2,765	2,214	2,250
Spain—						
Unwrought and scrap ..	4,889	113	(a) 100	(a) 972	—	—
Semi-manufactures (a)	267	71	108	121	448	455
Oxide .. .. .	523	195	231	230	275	279
Lithopone .. .. .	960	1,250	113	297	98	100
Sweden—						
Unwrought .. .. .	27,116	31,207	34,487	38,505	33,583	34,122
do. alloys .. .. .	2,294	2,775	3,334	3,919	5,538	5,627
Scrap .. .. .	29	89	132	—	14	14
Semi-manufactures (a)	1,580	1,532	1,585	1,540	1,510	1,534
Zinc-white .. .. .	2,347	2,086	2,086	2,398	2,125	2,159
Lithopone, etc... ..	2,506	2,665	2,100	1,564	1,410	1,433

(a) Including alloys.



IMPORTS OF ZINC (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Switzerland—						
Unwrought .. ..	22,784	24,114	25,401	30,566	26,935	27,367
Semi-manufactures (a)	3,263	4,303	4,509	5,188	5,645	5,736
Zinc-white .. ..	1,398	1,287	1,126	1,392	1,664	1,691
U.S.S.R.—						
Unwrought .. ..	16,000	29,230	35,820	49,300	52,400	53,300
do. alloys .. ..	5,400	4,000	3,840	4,000	4,000	4,000
Semi-manufactures .. ..	3,900	700	780	5,000	5,500	5,600
Yugoslavia—						
Concentrates .. ..	992	21,410	41,442	49,880	13,450	13,666
Unwrought .. ..	1,646	2,197	7,347	11,484	12,968	13,176
Semi-manufactures .. ..	241	329	186	207	748	760
Oxide .. ..	710	241	46	58	75	76
Lithopone .. ..	n.a.	1,269	669	1,159	1,964	1,996
Algeria—						
Unwrought .. ..	n.a.	148	118	689	n.a.	n.a.
Semi-manufactures .. ..	216	285	247	622	n.a.	n.a.
Oxide .. ..	n.a.	309	570	794	n.a.	n.a.
Angola—						
Semi-manufactures (a)	111	289	276	295	74	75
Oxide .. ..	35	52	106	100	128	130
Egypt—						
Unwrought .. ..	491	n.a.	n.a.	n.a.	n.a.	n.a.
Malagasy Republic—						
Semi-manufactures (a)	105	108	104	91	138	140
Oxide .. ..	15	2	19	39	43	44
Morocco—						
Unwrought .. ..	567	731	912	1,089	768	780
Semi-manufactures (a)	253	251	239	216	393	399
Oxide .. ..	479	432	—	2	598	608
Lithopone .. ..	1,273	1,386	1,569	2,040	1,885	1,915
Mozambique—						
Semi-manufactures .. ..	48	20	22	23	28	28
Oxide .. ..	78	72	99	104	84	85
South Africa—						
Unwrought .. ..	38,406	48,322	38,289	8,381	24,501	24,894
Semi-manufactures .. ..	382	980	1,581	698	7,184	7,300
Lithopone .. ..	1,498	1,512	1,378	1,362	1,253	1,273
Oxide .. ..	150	185	267	213	185	188
Sudan—						
Unwrought .. ..	—	—	74	44	53	54
Semi-manufactures .. ..	54	9	187	446	140	142
Tunisia—						
Unwrought and scrap (a)	59	96	59	157	315	320
Semi-manufactures (a)	98	128	51	128	151	153
Oxide .. ..	244	394	143	214	333	338
Honduras—						
Unwrought .. ..	20	39	—	2	19	19
Semi-manufactures .. ..	31	9	48	49	27	27
Mexico—						
Semi-manufactures .. ..	48	80	70	48	115	117
Oxide .. ..	46	100	55	56	59	60
Nicaragua—						
Semi-manufactures .. ..	1,078	147	74	46	19	19
United States—						
Ore (Zn content) .. ..	357,343	386,880	439,905	519,367	420,008	426,748
Unwrought .. ..	249,589	197,607	272,042	289,850	232,260	235,987
Dross and scrap .. ..	1,814	1,308	1,203	2,219	1,337	1,358
Semi-manufactures .. ..	3,016	4,054	8,285	8,383	9,100	9,246
Oxide .. ..	12,939	12,207	13,885	13,004	10,780	10,953
Lithopone .. ..	162	104	220	233	78	79

(a) Including alloys.

IMPORTS OF ZINC (cont.)

Importing Country and Description					Long tons	Tonnes
	1966	1967	1968	1969	1970	1970
OTHER COUNTRIES (cont.)						
Argentina—						
Unwrought .. ..	2,138	2,133	4,060	4,079	4,876	4,954
Sheets and plates .. ..	25	326	361	918	1,000	1,016
Zinc-white .. ..	18	26	71	65	n.a.	n.a.
Brazil—						
Unwrought (a) .. ..	40,780	35,876	42,404	54,798	43,282	43,977
Zinc-white .. ..	59	38	87	98	64	65
Lithopone .. ..	5,447	3,441	3,548	2,290	2,667	2,710
Chile—						
Unwrought .. ..	4,100	5,941	2,393	n.a.	n.a.	n.a.
Lithopone .. ..	n.a.	5	—	n.a.	n.a.	n.a.
Colombia—						
Unwrought (a) .. ..	7,564	2,296	4,166	n.a.	n.a.	n.a.
Semi-manufactures (a) .. ..	49	744	54	n.a.	n.a.	n.a.
Zinc-white .. ..	31	16	5	n.a.	n.a.	n.a.
Lithopone .. ..	549	196	236	n.a.	n.a.	n.a.
Peru—						
Semi-manufactures (a) .. ..	243	103	127	129	n.a.	n.a.
Zinc-white .. ..	25	25	11	15	n.a.	n.a.
Lithopone .. ..	230	198	160	140	n.a.	n.a.
Uruguay—						
Unwrought and sheets .. ..	1,037	868	982	1,253	1,358	1,380
Lithopone .. ..	250	270	158	218	245	249
Venezuela—						
Unwrought .. ..	5,250	4,619	6,756	6,116	n.a.	n.a.
Oxide .. ..	668	702	504	333	n.a.	n.a.
Lithopone .. ..	406	490	518	470	n.a.	n.a.
Burma—						
Unwrought .. ..	240	601	31	n.a.	n.a.	n.a.
Semi-manufactures (a) .. ..	—	138	177	n.a.	n.a.	n.a.
Formosa—						
Unwrought (a) .. ..	6,765	10,455	10,268	9,830	14,496	14,729
Semi-manufactures (a) .. ..	216	348	477	715	466	473
Lithopone .. ..	1,052	1,133	n.a.	800	703	714
Iran (b)—						
Unwrought .. ..	731	1,757	3,245	2,397	3,264	3,316
Semi-manufactures (a) .. ..	173	1,725	226	126	500	506
Lithopone .. ..	1,178	1,410	1,806	706	1,657	1,684
Iraq—						
Semi-manufactures .. ..	196	32	28	34	27	27
Israel—						
Unwrought (a) .. ..	2,678	3,673	3,769	5,343	3,542	3,599
Semi-manufactures .. ..	276	433	566	1,030	911	926
Oxide .. ..	368	424	524	677	n.a.	n.a.
Japan—						
Ore .. ..	439,066	604,380	843,138	833,386	957,547	972,913
Unwrought .. ..	7,529	17,815	8,417	8,099	21,594	21,941
Scrap .. ..	84	95	4	65	46	47
Semi-manufactures (a) .. ..	—	10	290	19	3	3
Korea (South)—						
Unwrought .. ..	6,748	4,527	6,564	8,195	9,413	9,564
Semi-manufactures .. ..						
Lithopone .. ..	981	2,259	n.a.	n.a.	n.a.	n.a.
Lebanon—						
Unwrought .. ..	926	447	791	817	888	902
Semi-manufactures .. ..	65	49	60	50	54	55
Oxide .. ..	130	100	69	104	41	42
Philippine Republic—						
Unwrought (a) .. ..	16,100	16,000	20,750	n.a.	n.a.	n.a.
Semi-manufactures (a) .. ..						
Oxide .. ..	n.a.	909	1,133	n.a.	n.a.	n.a.

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

## IMPORTS OF ZINC (cont.)

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>OTHER COUNTRIES</b> (cont.)						
Syria—						
Oxide and lithopone ..	(b) 177	46	(b) 113	(b) 190	(b) 45	(b) 46
Thailand—						
Unwrought (a) ..	11,412	16,387	14,414	17,983	16,383	16,645
Semi-manufactures (a)	2,448	2,128	2,104	1,871	1,818	1,852
Oxide .. ..	650	690	1,053	887	1,300	1,321
Lithopone .. ..	884	1,226	846	1,393	1,190	1,209
Turkey—						
Unwrought .. ..	3,102	4,010	7,988	7,782	n.a.	n.a.
Semi-manufactures (a)	2,708	2,028	1,361	1,841	n.a.	n.a.
Oxide .. ..	2,325	2,537	2,487	2,499	n.a.	n.a.

(a) Including alloys.

(b) Oxide only.

## ZIRCONIUM MINERALS

### PRODUCTION OF ZIRCONIUM MINERALS

Producing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Ceylon .. .. .	(b) 151	(b) 119	25	67	110	112
Malaysia (West) (a) ..	774	465	1,109	1,395	826	839
Australia— Zircon concentrates ..	235,649	283,682	294,195	369,296	379,377	385,466
<b>OTHER COUNTRIES</b>						
Egypt .. .. .	383	49	—	—	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic ..	693	205	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil (b) .. .. .	487	413	323	2,888	<i>n.a.</i>	<i>n.a.</i>

Zirconium minerals are also known to have been produced in India, the U.S.S.R., the United States and Cambodia.

(a) Exports.

(b) Zircon and baddeleyite.

### EXPORTS OF ZIRCONIUM MINERALS, ETC.

Exporting Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria— Ores and concentrates	—	536	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malaysia (West)— Zircon .. .. .	774	465	1,109	1,395	826	839
Australia— Zircon concentrates ..	210,428	247,179	266,121	311,242	380,488	386,595
<b>OTHER COUNTRIES</b>						
Germany (Federal)— Ore .. .. .	777	710	1,244	1,556	1,298	1,319
Malagasy Republic ..	123	—	—	—	—	—
South Africa— Zircon concentrates ..	—	—	—	89	—	—
United States— Ores and concentrates	2,063	2,437	1,809	2,409	3,911	3,974
Zirconium metal, etc. ..	57	35	103	198	268	272

## IMPORTS OF ZIRCONIUM MINERALS, ETC.

Importing Country and Description	Long tons					Tonnes
	1966	1967	1968	1969	1970	1970
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Zirconium ores ..	36,885	24,721	49,265	47,324	26,994	27,427
Canada— Zirconium alloys ..	12	56	98	93	92	94
<b>OTHER COUNTRIES</b>						
France— Zirconium ore ..	27,562	17,618	23,542	29,231	27,374	27,813
Germany (Federal)— Zirconium ore ..	26,285	22,229	29,327	31,512	40,726	41,380
Italy— Zirconium ore ..	14,260	17,523	16,808	18,073	34,713	35,270
United States— Zirconium ore ..	51,765	52,950	53,482	85,190	84,606	85,964
Zirconium metal ..	52	73	134	222	118	120
Brazil— Zirconium ore ..	1,000	2,084	1,432	4,566	2,467	2,507
Japan— Zirconium ore ..	29,583	51,691	57,447	61,125	92,786	94,275
Turkey— Zirconium ore ..	<i>n.a.</i>	116	224	20	<i>n.a.</i>	<i>n.a.</i>

## OTHER MINERALS AND METALS

These minerals are not separately recorded in the statistical returns of several countries.

Country and Description	1966	1967	1968	1969	1970	1970
						Kilograms.
<b>Germanium</b> (in terms of metal)						
PRODUCTION*—						
Congo (Kinshasa) Lb.	33,003	763	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South West Africa Lb.	1,854	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States (b) Lb.	30,000	30,000	30,000	30,000	28,000	12,500
EXPORTS—						
Italy .. .. . Lb.	3,086	6,834	9,039	6,173	9,480	4,300
South-West Africa Lb.	5,710	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
IMPORTS—						
Italy .. .. . Lb.	881	1,323	1,102	6,394	12,787	5,800
						Tonnes
<b>Nepheline Syenite</b>						
PRODUCTION—						
Canada .. .. . Ton	327,407	358,572	380,888	446,890	438,000	445,000
Norway .. .. . Ton	56,401	64,180	81,712	128,000	143,000	145,000
EXPORTS—						
Canada .. .. . Ton	235,379	274,654	288,555	353,226	346,382	351,940
IMPORTS—						
Mexico .. .. . Ton	102	161	151	284	101	103
United States .. Ton	226,281	256,837	271,981	346,679	353,475	359,145
						Tonnes
<b>Perlite</b>						
PRODUCTION—						
United Kingdom Ton	258	116	70	—	—	—
Australia .. . Ton	1,544	1,389	1,049	1,114	825	838
New Zealand .. Ton	1,028	1,055	1,840	<i>n.a.</i>	2,000	2,032
Greece .. .. . Ton	102,799	111,576	161,430	148,000	165,925	168,588
Mexico .. .. . Ton	9,936	10,405	9,772	10,000	12,112	12,306
United States .. Ton	489,000	570,000	498,000	547,000	542,000	551,000
Turkey .. .. . Ton	<i>n.a.</i>	20	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
						Tonnes
<b>Sodium Carbonate</b> (Natural)						
PRODUCTION—						
Kenya .. .. . Ton	110,624	103,100	105,908	104,235	164,832	167,477
United States (a) Ton	1,552,000	1,541,000	1,824,000	2,228,000	2,399,000	2,437,000
EXPORTS—						
Kenya .. .. . Ton	105,065	96,777	110,718	84,585	154,673	157,155
Sudan .. .. . Ton	7	61	67	75	151	153

\*Germanium is also produced in the United Kingdom.

(a) Sold or used by producers.

(b) From primary material of both domestic and foreign origin. Estimated.

## OTHER MINERALS AND METALS (cont.)

Country and Description	1966	1967	1968	1969	1970	1970
<b>Sodium Sulphate (Natural)</b>						Tonnes
<b>PRODUCTION—</b>						
Canada .. .. Ton	361,887	382,425	410,419	462,767	426,785	433,635
United States (d) Ton	571,000	569,000	625,000	600,000	n.a.	n.a.
Chile .. .. Ton	33,625	17,928	n.a.	n.a.	n.a.	n.a.
Argentina .. Ton	21,557	27,181	19,604	n.a.	n.a.	n.a.
Turkey .. .. Ton	7,306	8,968	10,865	13,567	16,354	16,616
<b>EXPORTS—</b>						
Canada .. .. Ton	90,551	110,565	97,308	107,512	107,043	108,761
<b>Tellurium</b>						Kilograms.
<b>PRODUCTION—</b>						
Canada .. .. Lb.	72,239	73,219	70,991	62,048	58,900	26,716
United States (a) Lb.	199,000	135,000	121,000	234,000	158,000	72,000
Peru .. .. Lb.	39,635	32,690	35,000	38,111	62,000	28,000
Japan .. .. Lb.	22,701	29,760	31,000	51,000	78,000	35,000
<b>EXPORTS—</b>						
Peru .. .. Lb.	113,421	25,199	37,000	34,998	n.a.	n.a.
<b>IMPORTS—</b>						
Spain .. .. Lb.	3,161	4,377	2,275	6,614	8,818	4,000
<b>Wollastonite</b>						Tonnes
<b>PRODUCTION—</b>						
Kenya .. .. Ton	—	12	1,360	680	98	100
India .. .. Ton	—	—	—	441	554	563
Finland .. .. Ton	3,813	3,445	4,228	5,120	5,955	6,051
South West Africa Ton	330	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico (b) .. Ton	5,000	n.a.	n.a.	n.a.	n.a.	n.a.
United States—						
Industrial .. ..	(c)	(c)	(c)	(c)	(c)	(c)
<b>EXPORTS—</b>						
South West Africa Ton	56	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Including tellurium content of compounds.

(b) Estimated.

(c) In the range 30,000 to 40,000 tons per annum.

(d) Sold or used by producers.

# MINERALS PRODUCED IN COUNTRIES OF THE COMMONWEALTH AND STERLING AREA

*The following list comprises those minerals produced in Commonwealth and Sterling Area countries during the period 1966-1970 for which data have been given in the preceding tables. Minerals outside the general coverage of the statistics in this Summary are excluded. Where the name of an element appears alone, the word "ores" or "minerals" is implied to follow; this list does not extend to the production of metals.*

<b>Abu Dhabi</b>	<b>Bahrain</b>	<b>Canada—(cont.)</b>
Petroleum	Petroleum	Sulphur
	<b>Barbados</b>	Talc
<b>Australia</b>	Natural gas	Tantalite, Columbite
Antimony		Tellurium
Asbestos	<b>Botswana</b>	Thorium
Barytes	Asbestos	Tin
Bauxite	Gold	Titanium
Bentonite	Manganese	Tungsten
Beryl	Silver	Uranium
Bismuth		Zinc
Cadmium		<b>Ceylon</b>
China Clay	<b>Brunei</b>	China clay
Chrome	Natural gas	Feldspar
Coal	Natural gasoline	Graphite
Cobalt	Petroleum	Ilmenite
Copper		Magnesite, Dolomite
Diamonds	<b>Canada</b>	Monazite
Diatomaceous earth	Arsenic	Salt
Feldspar, China stone	Asbestos	Zircon
Fuller's earth	Barytes	<b>Christmas Island</b>
Garnet	Bentonite	Phosphate
Gold	Bismuth	
Gypsum	Cadmium	<b>Cyprus</b>
Iron	Coal	Asbestos
Lead	Cobalt	Bentonite
Lithium	Copper	Chrome
Magnesite, Dolomite	Diatomaceous earth	Cobalt
Manganese	Feldspar	Copper
Mica	Fluorspar	Gypsum
Molybdenum	Garnet	Pyrites
Monazite	Gold	Salt
Natural gas	Graphite	
Nickel	Gypsum, Anhydrite	<b>Fiji</b>
Perlite	Indium	Gold
Petroleum	Iron	Iron
Phosphate	Lead	Manganese
Platinum	Lithium	Silver
Pyrites	Magnesite, Dolomite	<b>Ghana</b>
Salt	Mercury	Bauxite
Selenium	Mica	Diamonds
Sillimanite, Andalusite	Molybdenum	Gold
Silver	Natural gas	Manganese
Sulphur	Natural gasoline	Salt
Talc, Pyrophyllite	Nepheline syenite	<b>Guyana</b>
Tantalite, Columbite	Nickel	Bauxite
Tin	Niobium	Diamonds
Titanium	Petroleum	Gold
Tungsten	Platinum	Manganese
Uranium	Potash salts	<b>Hong Kong</b>
Zinc	Pyrites	China clay
Zircon	Salt	Feldspar
	Selenium	Graphite
<b>Bahamas</b>	Silver	Iron
Salt	Sodium sulphate	Tungsten



**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

<b>India</b>	<b>Kuwait</b>	<b>Ocean Island</b>
Asbestos	Petroleum	Phosphate
Barytes		
Bauxite	<b>Lesotho</b>	<b>Pakistan</b>
Bentonite	Diamonds	Antimony
Beryl		Barytes
Bromine	<b>Malaysia (West)</b>	Bauxite
China Clay	Bauxite	Bentonite
Chrome	China clay	China clay
Coal	Columbite	Chrome
Copper	Gold	Coal
Columbite	Iron	Dolomite
Corundum	Manganese	Feldspar
Diamonds	Monazite	Fuller's earth
Feldspar	Tin	Gypsum
Fluorspar	Titanium	Iron
Fuller's earth	Tungsten	Magnesite
Garnet	Zircon	Manganese
Gold		Mica
Gypsum	<b>Malta</b>	Natural gas
Iron	Salt	Petroleum
Lead		Salt
Magnesite, Dolomite	<b>Mauritius</b>	Strontium
Manganese	Salt	Talc
Mica		
Monazite	<b>Nauru Island</b>	<b>Papua</b>
Nitrate of potash	Phosphate	Gold
Petroleum		
Phosphate	<b>New Guinea</b>	
Pyrites	Gold	<b>Qatar</b>
Salt	Platinum	Petroleum
Sillimanite, Kyanite	Silver	
Silver		
Talc, Pyrophyllite	<b>New Hebrides</b>	<b>Rhodesia</b>
Titanium	Manganese	Antimony
Tungsten		Arsenic
Vermiculite	<b>New Zealand</b>	Asbestos
Wollastonite	Bentonite	Barytes
Zinc	Coal	Bauxite
Zircon	Copper	Beryl
	Diatomaceous earth	China clay
<b>Jamaica</b>	Gold	Chrome
Bauxite	Iron	Coal
Gypsum	Magnesite, Dolomite	Copper
Phosphate	Natural gas	Corundum
	Natural gasoline	Fluorspar
<b>Kenya</b>	Perlite	Gold
Asbestos	Petroleum	Iron
Barytes	Pumice	Kyanite
Beryl	Salt	Lead
China clay	Silver	Lithium
Copper	Tungsten	Magnesite, Dolomite
Diatomaceous earth	Wollastonite	Manganese
Feldspar		Mica
Fluorspar	<b>Nigeria</b>	Nickel
Gold	China clay	Phosphate
Gypsum	Coal	Pyrites
Magnesite	Gold	Silver
Mica	Lead	Talc
Phosphate	Molybdenum	Tantalite
Pumice	Monazite, Thorite	Tin
Salt	Natural gas	Tungsten
Silver	Petroleum	
Sodium carbonate	Salt	<b>St. Kitts</b>
Vermiculite	Tantalite, Columbite	Salt
	Tin	
	Tungsten	
	Zircon	

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

**Sarawak**

Antimony  
Gold  
Petroleum  
Phosphate

**Seychelles**

Phosphate

**Sierra Leone**

Bauxite  
Diamonds  
Gold  
Iron  
Titanium

**Swaziland**

Asbestos  
Barytes  
Beryl  
China clay  
Coal  
Gold  
Iron  
Pyrophyllite  
Silver  
Tin

**Tanzania**

Bentonite  
China clay  
Coal  
Corundum  
Diamonds  
Gold  
Gypsum  
Lead  
Magnesite  
Mica  
Niobium  
Salt  
Silver  
Tin  
Tungsten  
Vermiculite

**Trinidad**

Gypsum  
Natural asphalt  
Natural gas  
Natural gasoline  
Petroleum  
Sulphur

**Turks and Caicos Islands**

Salt

**Uganda**

Beryl  
Bismuth  
Cobalt  
Copper  
Gold  
Lithium

**Uganda—(cont.)**

Mica  
Phosphate  
Salt  
Silver  
Tantalite, Columbite  
Tin  
Tungsten

**United Kingdom**

Barytes, Witherite  
Bromine  
China clay  
China stone  
Coal  
Copper  
Diatomaceous earth  
Fluorspar  
Fuller's earth  
Germanium  
Gypsum, Anhydrite  
Iron  
Lead  
Magnesite, Dolomite  
Natural gas  
Oil-shale  
Perlite  
Petroleum  
Salt  
Strontium  
Sulphur  
Talc  
Tin  
Zinc

**Virgin Islands**

Salt

**Zambia**

Cadmium  
Cobalt  
Copper  
Gold  
Gypsum  
Lead  
Manganese  
Mica  
Selenium  
Silver  
Tantalite, Columbite  
Tin  
Zinc

**Burma—(cont.)**

Lead  
Nickel  
Petroleum  
Salt  
Silver  
Tin  
Tungsten  
Zinc

**Iceland**

Pumice

**Irish Republic**

Barytes  
Coal  
Copper  
Gypsum  
Lead  
Pyrites  
Zinc

**Jordan**

Phosphate  
Salt

**Libya**

Gypsum  
Petroleum  
Salt

**South Africa**

Antimony  
Asbestos  
Barytes  
Bentonite  
Beryl  
Bismuth  
China clay  
Chrome  
Coal  
Copper  
Corundum  
Diamonds  
Diatomaceous earth  
Feldspar  
Fluorspar  
Fuller's earth  
Gold  
Graphite  
Gypsum  
Iron  
Lead  
Lithium  
Magnesite  
Manganese  
Mica  
Nickel  
Phosphate  
Platinum, Osmiridium  
Pyrites  
Salt  
Sillimanite, Andalusite

**Burma**

Barytes  
Coal  
Copper  
Gold  
Gypsum  
Iron

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

**South Africa—(cont.)**

Silver  
Sulphur  
Talc  
Tantalite  
Tin  
Titanium  
Tungsten  
Uranium  
Vanadium  
Vermiculite  
Zinc

**South West Africa**

Arsenic  
Beryl  
Cadmium  
Copper  
Diamonds  
Feldspar  
Germanium  
Gold  
Graphite  
Iron  
Lead  
Lithium  
Manganese  
Mica

**South West Africa**

—(cont.)

Phosphate  
Salt  
Sillimanite, Kyanite  
Silver  
Tantalite, Columbite  
Tin  
Tungsten  
Vanadium  
Wollastonite  
Zinc

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