

INSTITUTE OF GEOLOGICAL SCIENCES

Natural Environment Research Council

WORLD MINERAL STATISTICS 1975–79

Production: Exports: Imports

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Institute of Geological Sciences, London

PREFACE

For sixty years the Institute of Geological Sciences and its predecessors have published statistics on the production and trade of minerals throughout the world for the information of government, industry and the general public. The previously well-known series of annual publications, the *Statistical Summary of the Mineral Industry: World Production, Exports and Imports*, began with a volume containing information for the years 1913-18 and concluded with an edition, published in 1973, covering the period 1967-71. This was then succeeded by a new annual series entitled *World Mineral Statistics*, first published in 1978.

Since the publication of the previous volume, Mr. R. A. Healing has retired as Head of the Mineral Statistics and Economics Unit. For fifteen years, he played a leading part in the production of the *Statistical Summary of the Mineral Industry* and the Institute is indebted to him for his help in launching the present series, *World Mineral Statistics*, and in guiding it through the early editions.

The first three editions of *World Mineral Statistics* presented data for 1970-1978 inclusive, thus providing continuity with the old series. Each volume contained five years' data and was advanced two years at a time to bring the new series up-to-date as quickly as possible. This present volume, the fourth in the series, includes statistics for the years 1975-1979 and re-establishes the principle of one-year roll forward for successive annual editions. Full cognizance is taken of revisions and data subsequently received. As always, the objective is to present as far as possible the latest official information obtainable from primary sources, that is from the individual producing and trading countries, rather than uncritically to reproduce data from compilations made by other organisations working in this field of world mineral statistics. The latter have, however, been fully consulted and the invaluable assistance and co-operation provided to the Institute by those numerous national and international organisations is gratefully acknowledged.

By increasing the scope of the work in successive editions, a wide spectrum of metallic and industrial minerals is now covered and this will no doubt be broadened from time to time as interest in particular minerals arises. In this volume, three new tables have been introduced showing the production and trade of magnesite, iodine and the rare earth minerals. Many other tables have been improved in detail. For example, trade in precious metal scrap is now included in the compilation, as are the metallic forms of chromium, manganese and zirconium. Our compilation staff have expanded their efforts to fill gaps in reported trade data by wide-ranging analyses of world trade statistics.

An examination of the tables presented reveals that, contrary to what one might expect of recent years, fewer than five commodities show a decrease in tonnage produced over the years 1977-1979, although some have not yet reached the production levels achieved in 1974-75.

The mineral industry is essentially one of the end-products of Earth Sciences investigations. It is hoped that this presentation of economic and statistical information will provide the reader with a comprehensive basis for interpreting and analysing the activities and trends of today's world mineral industry, its importance to our material well-being being ever more apparent.

Dr G M Brown, FRS

Director

Institute of Geological Sciences
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EXPLANATORY NOTES

Coverage

Constant efforts are devoted to extending the coverage of countries and commodities dealt with by this publication. The range of minerals now covered is, with a few exceptions, the same as that in the *Statistical Summary of the Mineral Industry*, the predecessor of this series. However, somewhat less detail is here given on commodity sub-divisions in the trade tables to achieve greater clarity and consistency in this series. Users of this compilation are advised that, at least for the years up to 1976, the full coverage of the *Statistical Summary* is held on file in the Minerals Strategy and Economics Research Unit and is available for consultation. Where figures are shown in the tables as 'estimated' the source of the estimate is not generally given.

Arrangement of countries

In each table, after the United Kingdom, countries are ordered alphabetically in geographical groupings as follows:

- European Economic Community (EEC)
- Europe other than EEC and including the Soviet Union
- Africa
- North and Central America, including the Caribbean
- South America
- Asia
- Australasia, including the Pacific Islands

So far as possible the nomenclature follows the London Diplomatic List and United Nations usage.

Production of metals

It should be noted that mine production of some metals is expressed as metal content (or equivalent). This is clearly noted at the head of the table, adjacent to the unit used. Additionally, metal production from smelting and/or refining, of both domestic and imported ores, is shown in separate tables for cobalt, copper, iron, lead and zinc. So far as possible, the data given refer to primary metal production.

Trade

Canada Production of Canadian minerals is shown throughout by the official figures for 'sales and shipments'.

South Africa Import data are taken from the trade statistics of the common customs area, which includes Botswana, Lesotho, South Africa, Namibia, and Swaziland, and relate to this area as a whole.

USA US trade statistics show trade between the US customs territory and foreign countries; but exclude trade between the US and Puerto Rico, and between the US and the Virgin Islands, Guam, American Samoa and other US possessions. Also excluded is trade between any of these outlying areas, shipments from US possessions to foreign countries, and shipments for the use of the US Government in foreign countries.

General Although every effort has been made to provide comprehensive coverage of trade statistics the resulting trade compilations depend on the nature of the data available. The fact that a country is not shown as trading in a particular commodity does not necessarily imply that there is no trade in that item. The commodity may not be separately identified in the available trade statistics or may not be traded in significant quantities.

Where an estimate for a trade statistic has been reconstructed from the imports/exports of other countries, the resulting figure may be conservative, as complete coverage of world trade is seldom available.

In general, export statistics include re-exports. The distinction is only made when re-exports are recorded separately in the relevant national trade account and are deemed to be significant.

Tables showing trade in metals covered by Standard International Trade Classification (Revision 2) 688.0, 689.1 & 9, and 699.9 (Antimony, Bismuth, Cadmium, Chromium, Cobalt,

Manganese, Molybdenum, Tantalum-Niobium, Titanium, Tungsten, Vanadium and Zirconium) include under the term 'metal', unwrought and wrought forms, powder, alloys, waste and scrap, unless these are separately shown. Trade tables of other metals include only unwrought forms under the term 'metal'.

Acknowledgements

Compilation of this volume of mineral statistics has been possible only by obtaining information from a very large number of organisations throughout the world, chiefly home and overseas government departments and specialist national or international authorities concerned with particular sectors of the minerals or metals industries. To all these bodies the Institute expresses its grateful acknowledgement for the information made available, whether in published form or provided by direct correspondence.

Among the numerous overseas government departments which have provided valuable information, particular acknowledgement is made to the United States Bureau of Mines; the Department of Energy, Mines and Resources of Canada; the Bureau of Mineral Resources, Geology and Geophysics of Australia; the Department of Mines of South Africa; the Indian Bureau of Mines; and the Mines Departments of other countries whose regular statements, yearbooks and other reports are worthy of direct consultation by readers in search of detail.

Specialist commodity organisations which have kindly allowed information to be reproduced, and whose own publications contain a wealth of authoritative data, include the World Bureau of Metal Statistics, the British Sulphur Corporation, Samuel Montagu & Company Ltd, the British Steel Corporation/Iron and Steel Statistics Bureau, the International Tin Council, ISMA Ltd, International Lead and Zinc Study Group, Metallgesellschaft AG, the UN Food and Agricultural Organisation, and the UNCTAD Committee on Tungsten.

More general information on a wider range of commodities can be found in such publications as the Mining Journal: *Mining Annual Review*; World Mining: *Yearbook Catalogue and Directory*; *Annales des Mines*; the American Bureau of Metal Statistics: *Non-ferrous Metal Data*; *Annuaire Statistique MINEMET*, and publications of the Statistical Office of the United Nations Department of Economic and Social Affairs. These, and similar works, form valuable sources of comparative data.

Units

The statistics shown in this volume are expressed in metric units. The following factors are given for converting to non-metric units:

Tonnes \times 0.9842 = long tons

Tonnes \times 1.1023 = short tons

Kilograms \times 2.2046 = pounds

Kilograms \times 32.1507 = troy ounces

Cubic metres \times 35.31467 = cubic feet

1 tonne of crude petroleum equals on average 7 barrels of crude petroleum

Conversion of national currencies to pounds sterling has been made using the annual period average factors shown for each country in *International Financial Statistics* published by the International Monetary Fund.

Symbols

...	Figures not available
0	Quantity less than half unit shown
—	Nil
*	Estimated

Production of Bauxite

thousand tonnes

Country	1975	1976	1977	1978	1979
France	2 557	2 330	2 059	1 977	1 969
Italy	32	24	35	24	26
Greece	3 006	2 503	2 882	2 614	2 915
Hungary	2 890	2 918	2 949	2 899	2 976
Romania	779	890	708	650	650
Soviet Union (a)	* 6 600	* 6 700	* 6 700	* 6 700	* 6 500
Spain	11	13	10	9	8
Turkey	558	463	567	449	153
Yugoslavia	2 306	2 033	2 044	2 566	3 012
Ghana	314	267	283	330	214
Guinea	8 406	11 316	10 841	12 065	12 200
Mozambique	5	5	2	—	—
Sierra Leone	716	651	790	805	583
Dominican Republic (b)	772	620	575	568	524
Haiti (b)	522	660	588	565	560
Jamaica (b)	11 304	10 309	11 433	11 736	11 505
USA (b)	1 800	1 989	2 013	1 669	1 821
Brazil	969	998	1 352	1 401	1 642
Guyana (b)	3 829	3 108	3 344	3 479	3 354
Surinam	4 751	4 585	4 856	5 021	5 000
China	* 900	* 1 100	* 1 200	* 1 400	* 1 500
India	1 274	1 449	1 519	1 663	1 934
Indonesia	993	940	1 301	1 008	1 093
Malaysia	704	660	616	615	387
Australia	21 003	24 084	26 086	24 299	27 583
World total (c)	77 000	80 600	84 800	84 500	88 100

(a) Includes nepheline concentrates and alunite

(b) Dried bauxite equivalent

(c) Excluding small amounts of bauxite produced by Pakistan

Production of Alumina

tdnnes

Country	1975	1976	1977	1978	1979
United Kingdom	82 500	96 000	98 500	94 000	88 100
France	1 250 200	1 184 080	1 241 600	1 220 940	1 238 450
Germany, Federal Republic of	1 246 138	1 333 425	1 453 948	1 409 780	1 352 374
Italy	750 000	797 800	792 308	808 552	847 533
Czechoslovakia	* 100 000	* 90 000	* 95 000	64 363	64 200
German Democratic Republic	48 300	44 468	38 953	37 585	36 000
Greece	475 300	461 600	474 200	482 000	495 000
Hungary	756 242	731 862	782 994	781 920	793 000
Romania	368 000	425 000	442 000	449 000	500 000
Soviet Union	* 2 400 000	* 2 500 000	* 2 600 000	* 2 600 000	* 2 600 000
Turkey	* 81 700	* 139 100	* 170 300	* 74 100	* 75 000
Yugoslavia	283 090	455 276	499 341	496 000	836 000
Guinea	639 100	552 000	562 000	622 000	662 000
Canada	1 133 700	490 000	1 060 800	1 053 600	824 000
Jamaica	2 276 600	1 621 027	2 036 000	2 141 900	2 074 000
USA	5 304 000	* 5 800 000	6 030 000	5 960 000	6 450 000
Brazil	267 500	303 000	367 600	434 300	410 000
Guyana	298 340	285 000	277 300	249 500	280 000
Surinam	1 129 000	1 162 000	1 215 000	1 316 000	1 250 000
China	* 520 000	* 520 000	* 650 000	* 700 000	* 800 000
India	337 000	442 000	386 600	480 000	493 000
Japan	1 565 000	1 662 000	2 045 000	1 767 000	1 822 000
Taiwan	46 400	47 700	51 000	51 000	58 000
Australia	5 128 877	6 205 828	6 659 234	6 775 675	7 414 606
World total	26 500 000	27 300 000	30 000 000	30 100 000	31 500 000

Production of Primary Aluminium

Country	1975	1976	1977	1978	1979
United Kingdom	308	335	350	346	360
France	383	385	399	391	395
Germany, Federal Republic of	678	697	742	740	742
Italy	190	213	260	267	270
Netherlands	261	256	241	261	259
Austria	89	89	92	91	93
Czechoslovakia	43	36	37	37	37
German Democratic Republic	* 60	* 60	* 65	* 65	* 60
Greece	135	134	145	144	145
Hungary	70	70	71	71	72
Iceland	59	65	71	74	71
Norway	595	618	623	639	660
Poland	103	103	104	100	97
Romania	204	207	209	213	213
Soviet Union	* 2 150	* 2 200	* 2 200	* 2 300	* 2 400
Spain	210	211	211	212	260
Sweden	77	83	83	82	82
Switzerland	79	78	80	79	83
Turkey	17	31	30	33	32
Yugoslavia	168	198	197	196	190
Cameroon	52	57	57	41	45
Egypt	2	59	90	100	101
Ghana	143	151	154	114	169
South Africa	76	78	78	81	86
Canada	887	633	983	1 048	848
Mexico	40	42	43	43	43
USA	3 519	3 857	4 117	4 358	4 557
Argentina	24	43	50	49	118
Brazil	121	139	167	186	239
Surinam	35	46	50	58	62
Venezuela	50	47	43	71	207
Bahrain	116	122	121	123	126
China	* 200	* 200	* 250	* 300	* 300
India	167	210	184	205	212
Iran	51	31	21	26	11
Japan	1 013	919	1 188	1 058	1 010
Korea, Republic of	18	18	17	18	18
Taiwan	28	26	30	50	56
Australia	214	232	248	263	270
New Zealand	109	140	145	151	154
World Total	12 700	13 100	14 200	14 700	15 200

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Bauxite	1 381	1 460	1 238	659	2 813
Alumina	11 798	12 675	10 863	10 823	11 204
Alumina hydrate	12 872	30 314	32 277	25 200	22 358
Unwrought	43 416	81 193	60 245	74 117	88 914
Unwrought alloys (h)	45 399	78 995	105 504	86 479	118 071
Scrap (i)	15 477	6 869	9 757	12 706	28 187
Belgium-Luxembourg					
Bauxite	75	55	59	689	4 531
Alumina	436	694	194	185	1 152
Unwrought	5 766	9 510	5 403	1 048	820
Unwrought alloys	4 206	4 685	7 673	9 137	10 022
Scrap	18 096	32 127	38 978	28 726	33 532
Denmark					
Unwrought	47	—	1 145	3 364	10 000
Unwrought alloys	4 702	4 654	5 819	6 498	
Scrap	2 635	4 793	6 598	7 345	...
France					
Bauxite	46 006	32 307	19 976	17 437	12 471
Alumina	297 303	235 222	251 089	226 873	257 371
Alumina hydrate	70 376	76 695	81 162	76 158	69 530
Unwrought	105 773	72 269	83 453	84 660	75 592
Unwrought alloys	58 014	76 924	82 339	81 758	82 006
Scrap	22 297	30 605	32 094	33 969	39 790
Germany, Federal Republic of					
Bauxite	10 178	4 615	9 327	12 260	21 621
Alumina	227 639	324 235	321 518	344 606	223 954
Alumina hydrate	111 172	132 026	118 543	120 544	155 077
Unwrought	79 060	133 366	69 404	107 670	67 653
Unwrought alloys	80 599	148 060	129 732	163 941	180 213
Scrap	31 500	49 388	50 819	52 982	51 975
Irish Republic					
Unwrought (a)	...	1 883	1 993	2 325	2 523
Italy					
Bauxite	5 912	1 390	6 744	12 240	27 565
Alumina	364 059	472 980	322 147	311 007	392 949
Alumina hydrate	136	2 584	10 130	16 592	24 948
Unwrought	24 216	3 608	11 929	49 195	13 045
Unwrought alloys	9 117	5 846	12 265	20 069	9 350
Scrap	718	1 339	981	1 693	1 645
Netherlands					
Bauxite (b)	2 652	5 605	3 467	3 295	26 323
Alumina (b)	24 796	27 029	30 282	39 098	59 128
Alumina hydrate (b)	4	10	35	421	358
Unwrought	186 234	168 593	202 108	170 048	219 367
Unwrought alloys	77 948	121 764	114 139	124 395	140 032
Scrap	32 980	48 510	53 358	61 994	67 297
Austria					
Unwrought	8 536	8 589	8 699	11 685	10 306
Scrap	20 073	30 419	48 737	42 570	38 864
Finland					
Unwrought (a)	548	1 195	3 248	2 652	1 338
Greece					
Bauxite	1 594 641	1 366 847	1 548 527	1 688 716	1 808 505
Alumina	200 008	194 732	203 127	174 355	266 882
Unwrought	89 067	88 909	77 513	85 275	73 806
Hungary					
Bauxite	603 000	633 018	584 319	601 203	595 687
Alumina	686 000	620 953	706 539	688 002	691 989
Alumina hydrate	9 461	7 027	6 309	8 605	9 455
Unwrought	60 821	53 927	67 903	77 777	80 556
Scrap	17 627	16 168	17 688	12 128	10 970
Iceland					
Unwrought	43 600	78 625	74 200	77 349	76 226

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
Norway					
Unwrought	309 266	375 475	354 048	416 859	339 149
Unwrought alloys	142 234	186 316	210 214	213 382	226 155
Scrap	8 524	10 148	14 704	21 520	23 841
Romania					
Unwrought	84 700	75 000	60 200	70 300	65 000
Soviet Union					
Unwrought	502 365	* 520 000	* 540 000	* 560 000	* 560 000
Spain					
Unwrought	10	3 712	6 202	2 134	35 772
Unwrought alloys	2 378	7 092	2 658	3 704	7 098
Sweden					
Bauxite	750	1 150	4 133	5 717	730
Unwrought	2 860	6 414	19 373	28 656	9 775
Unwrought alloys	5 159	6 923	13 085	9 873	9 786
Scrap	1 250	1 897	3 820	2 256	1 628
Switzerland					
Alumina	145	155	184	163	1 189
Unwrought & scrap	22 661	33 197	29 027	32 876	47 376
Turkey					
Bauxite	75 000	11 160	—	28 725	2 600
Alumina	36 657	76 080	60 310	20 870	1 500
Yugoslavia					
Bauxite	1 283 147	1 023 950	908 894	676 163	524 928
Alumina hydrate	77 383	91 665	125 866	102 066	417 387
Unwrought	71 869	81 316	63 224	55 641	41 639
Unwrought alloys	95	1 459	831	3 089	4 540
Scrap	6 741	7 132	6 148	3 127	352
Cameroon					
Unwrought	25 034	20 837	20 244	7 244	20 500
Ghana					
Bauxite	320 494	...	...	...	...
Unwrought (a)	135 800	145 100	148 100	111 300	152 600
Guinea					
Bauxite	6 615 000	(f)* 9 300 000	(f)* 6 800 000	(f)* 6 700 000	(f)* 6 900 000
Alumina	277 000	(f)* 500 000	(f)* 350 000	(f)* 400 000	(f)* 400 000
Mozambique					
Bauxite	3 846	920	—	...	...
Sierra Leone					
Bauxite	625 265	578 961	809 726	550 280	...
South Africa					
Unwrought (a)	* 13 700	* 20 400	* 28 300	* 37 400	* 29 400
Canada					
Alumina (g)	24 742	15 944	24 211	32 701	26 543
Unwrought	513 069	507 863	655 352	862 816	550 697
Scrap	43 271	51 419	50 833	57 773	70 467
Dominican Republic					
Bauxite	753 601	516 632	642 667	628 470	523 114
Haiti					
Bauxite	522 707	738 758	700 707	629 524	...
Jamaica					
Bauxite (d)	5 482 681	6 284 034	6 354 801	6 447 723	...
Alumina	2 374 776	1 622 565	2 035 901	2 142 090	...
USA					
Bauxite	28 757	24 624	33 183	34 040	32 905
of which: Re-exports	9 160	9 382	7 515	10 828	9 361
Alumina	673 511	738 186	492 777	501 552	547 915
Alumina hydrate	22 085	31 575	33 973	44 105	36 791
Unwrought (a)	168 756	138 590	88 855	115 066	182 691
Scrap	60 829	98 872	92 369	176 590	279 373

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
Brazil					
Bauxite	17 777	2 738	3 654	4 005	516 149
Guyana					
Bauxite, dried	1 377 390	934 284	895 653	1 014 484	...
Bauxite, calcined	784 023	742 432	704 593	587 619	...
Alumina	308 110	250 888	251 860	251 170	...
Surinam					
Bauxite	2 325 000	1 976 000	2 172 000	2 239 000	...
Alumina	1 090 000	1 060 000	1 104 000	1 188 000	...
Bahrain					
Unwrought (a)	90 093	120 903	112 970	140 100	130 800
China					
Bauxite (f)	* 120 000	* 135 000	* 109 000	* 100 000	* 180 000
Alumina (f)	* 4 000	* 10 000	* 8 000	* 10 000	* 13 000
Hong Kong					
Bauxite (Re-exports)	13 014	10 435	8 223	4 500	8 760
Alumina (Re-exports)	17	16	7	3 620	7
Alumina hydrate (Re-exports)	205	798	628	1 851	1 389
Unwrought (Re-exports)	2 925	4 281	4 777	5 605	5 980
Scrap	3 976	5 543	5 977	6 302	8 210
India					
Bauxite	14 320	21 190	47 665	1 900	...
Unwrought (c)	10 108	25 319	1 796	...	...
Indonesia					
Bauxite	973 370	872 039	1 138 361	911 105	1 091 032
Iran (e)					
Unwrought	13 332	1 506	—	200	—
Japan					
Bauxite	860	1 066	660	1 821	1 000
Alumina	33 709	85 243	151 869	124 105	205 841
Alumina hydrate	23 443	38 224	51 447	50 961	53 742
Unwrought	77 364	52 024	86 924	45 438	1 764
Unwrought alloys	6 142	17 682	12 725	9 156	6 182
Scrap	404	752	1 422	1 097	292
Malaysia					
Bauxite	649 371	523 818	663 758	...	...
Singapore					
Alumina	4 319	21 856	2 795	1 425	882
Unwrought	90	559	893	3 665	3 226
Scrap	2 512	3 792	3 921	4 228	22 517
Taiwan					
Unwrought	1 464	295	78	444	6
Australia					
Bauxite	* 6 100 000	* 5 900 000	* 6 200 000	* 5 400 000	* 5 700 000
Alumina	4 513 937	5 855 447	6 071 542	6 310 213	6 534 193
Unwrought (a)	76 661	64 532	77 818	80 019	76 000
Scrap	2 710	5 996	6 925	8 363	10 965

Notes:

- 1 Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
- 2 In this table the description 'unwrought' aluminium corresponds to item 684.1 of the Standard International Trade Classification (Revision 2) and comprises ingots, blocks, unwrought bars, etc

(a) Including alloys

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(c) Years ended 31 March following that stated

(d) Estimated dry equivalent

(e) Years ended 20 March following that stated

(f) IGS estimates, based on known imports into certain countries

(g) Officially described as 'Aluminium ores and concentrates' but believed to be mostly alumina

(h) See footnote (i)

(i) From 1977 excludes waste and scrap in ingot form for smelting, which is then included with 'Unwrought alloys'

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Bauxite, uncalcined	264 788	273 106	320 816	288 426	257 172
Bauxite, calcined	171 732	185 011	196 720	135 630	155 585
Alumina	670 834	(h)* 650 000	698 168	695 887	596 323
Alumina hydrate	1 947	3 139	4 661	3 466	13 510
Unwrought	110 155	128 076	110 115	78 228	75 131
Unwrought alloys (i)	49 489	90 170	92 450	113 380	110 349
Scrap (j)	13 650	16 729	6 167	4 976	6 282
Belgium-Luxembourg					
Bauxite	16 380	19 680	17 406	32 867	40 903
Alumina	4 257	8 242	6 984	6 201	7 303
Alumina hydrate	8 432	12 815	15 300	15 633	16 566
Unwrought	128 140	147 836	139 555	175 926	175 774
Unwrought alloys	60 036	110 412	98 855	90 908	76 997
Scrap	14 777	19 073	14 161	15 351	26 556
Denmark					
Bauxite	130 418	93 064	4 543	10 143	...
Unwrought	596	710	1 837	6 221	} 21 100
Unwrought alloys	4 439	10 206	11 137	10 901	
Scrap	1 835	2 260	2 776	1 638	...
France					
Bauxite	1 456 369	2 269 601	1 919 636	1 954 504	1 720 059
Alumina	9 956	12 577	16 485	37 231	16 154
Alumina hydrate	2 118	6 903	14 634	18 550	22 033
Unwrought	137 185	140 011	151 534	160 732	168 745
Unwrought alloys	80 741	111 396	123 732	130 095	146 357
Scrap	25 192	31 735	37 081	42 286	52 228
Germany, Federal Republic of					
Bauxite	4 213 076	4 086 997	4 090 450	3 613 821	3 694 216
Alumina	471 753	473 147	494 918	486 069	458 120
Alumina hydrate	2 541	2 652	2 099	2 080	1 712
Unwrought	169 111	245 280	258 285	245 788	293 717
Unwrought alloys	115 342	159 869	162 226	165 070	193 525
Scrap	94 426	102 532	128 757	137 345	157 123
Irish Republic					
Unwrought (a)	5 336	7 705	5 625	6 333	7 888
Alumina	2 734	2 796	3 163	3 239	3 536
Italy					
Bauxite	1 829 887	1 836 634	1 912 894	1 644 740	2 287 342
Alumina	40 642	87 820	114 237	139 505	164 716
Alumina hydrate	25 825	23 304	31 209	27 336	14 974
Unwrought	81 623	128 166	120 815	119 944	126 721
Unwrought alloys	29 457	69 411	74 674	70 541	109 906
Scrap	53 289	73 568	89 431	82 849	97 408
Netherlands					
Bauxite (b)	152 732	130 828	141 242	151 521	193 695
Alumina (b)	549 603	512 341	505 774	542 576	562 993
Alumina hydrate (b)	21 696	28 444	24 760	21 861	24 577
Unwrought	96 114	130 339	130 953	106 553	127 852
Unwrought alloys	25 251	31 769	31 351	38 955	39 479
Scrap	24 728	28 341	29 850	30 515	33 468
Austria					
Bauxite	18 947	30 878	34 233	40 226	40 231
Alumina	186 948	188 489	192 835	198 667	192 829
Alumina hydrate	7 198	8 727	7 770	7 890	7 628
Unwrought	17 994	21 040	19 246	14 891	30 663
Scrap	14 120	24 145	55 838	47 061	44 137
Finland					
Alumina	116	174	147	287	429
Alumina hydrate	24 625	22 401	17 672	24 045	27 409
Unwrought	11 721	19 198	23 287	18 191	21 073
Unwrought alloys	7 447	5 268	5 248	3 520	3 818
German Democratic Republic					
Bauxite	265 300	260 900	197 900	251 500	...
Alumina	94 524	92 648	...	...	...

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
Greece					
Bauxite	976	4 181	3 726	1 057	5 878
Alumina	—	—	—	216	285
Alumina hydrate	201	—	—	353	348
Unwrought	891	3 646	4 527	374	367
Hungary					
Unwrought	146 900	155 514	162 406	165 859	180 187
Iceland					
Alumina	169 919	130 966	113 168	141 907	142 465
Norway					
Bauxite	6 143	3 473	10 542	3 706	20 641
Alumina	1 234 914	1 313 561	1 267 885	1 197 810	1 165 392
Alumina hydrate	35 545	29 250	33 579	31 682	41 105
Unwrought	13 472	13 469	4 246	3 615	3 155
Unwrought alloys	5 911	10 092	4 255	4 334	5 746
Poland					
Bauxite	119 235	127 417	115 298	100 558	...
Alumina	271 588	281 060	289 553	313 209	284 000
Portugal					
Alumina	3 488	3 163	5 160	8 193	6 234
Unwrought	4 776	9 431	12 050	20 223	20 042
Romania					
Bauxite	609 565	...	...	...	...
Alumina	84 606	...	...	...	...
Soviet Union					
Bauxite	3 477 000	3 524 000	* 3 500 000	* 3 500 000	* 3 500 000
Alumina	1 028 846	* 1 000 000	* 1 000 000	* 1 000 000	* 1 000 000
Spain					
Bauxite	118 906	95 027	110 294	117 544	142 818
Alumina	445 564	408 641	413 487	432 221	559 221
Unwrought	27 860	13 441	32 954	31 127	6 496
Unwrought alloys	730	986	3 890	6 845	656
Scrap	4 319	2 861	3 466	3 108	4 080
Sweden					
Bauxite	68 042	38 523	37 470	58 167	67 573
Alumina	171 387	150 643	193 364	145 338	150 290
Alumina hydrate	48 834	39 206	39 675	39 898	49 299
Unwrought	22 307	25 579	23 921	24 065	23 319
Unwrought alloys	21 465	21 187	19 404	10 103	13 437
Scrap	1 140	1 179	430	2 936	5 840
Switzerland					
Bauxite	20 230	25 534	8 560	7 693	6 995
Alumina	158 074	158 222	158 096	152 844	151 287
Unwrought & scrap	16 100	31 143	39 219	35 314	41 184
Turkey					
Alumina	1 184	192	188	171	138
Unwrought	51 681	26 861	40 906	11 245	13 022
Yugoslavia					
Bauxite	108 621	41 304	51 403	43 643	63 883
Alumina	175 463	38 327	1 347	30 162	1 367
Unwrought	29 680	32 283	43 066	40 704	40 655
Unwrought alloys	2 651	1 401	633	885	564
Cameroon					
Alumina	75 695	127 080	78 425	81 600	...
Egypt					
Unwrought & scrap	7 705	1 533	772	839	1 857
Ghana					
Alumina	273 801	252 352	...	...	...
Unwrought (a)	73	120	...	...	...
Madagascar					
Unwrought & scrap	484	656	444	1 112	—
Morocco					
Bauxite	—	—	—	780	810
Alumina	1 115	1 415	2 431	1 725	1 853
Nigeria					
Unwrought (a)	3 298	5 334	2 146	...	...

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
South Africa					
Bauxite	32 130	13 248	24 034	18 119	23 701
Alumina	140 499	165 347	159 739	184 956	174 213
Unwrought	1 264	633	449	614	617
Scrap	356	875	662	518	405
Tanzania					
Unwrought (a)	1 630	3 427	—	4 734	...
Canada					
Bauxite	2 420 669	1 230 053	2 755 254	2 432 552	2 149 671
Alumina	760 616	907 955	821 597	1 056 208	952 888
Unwrought	18 303	22 545	20 789	11 480	23 984
Scrap	7 011	8 936	16 126	27 162	30 682
Mexico					
Bauxite, calcined	50 691	34 751	28 032	48 404	...
Alumina	85 246	93 065	95 914	93 560	...
Alumina hydrate	9 135	11 945	12 836	14 729	...
Unwrought	7 591	9 865	5 491	26 805	...
USA					
Bauxite, crude dried	11 815 032	12 796 409	13 374 074	14 036 476	14 239 765
Bauxite, calcined	353 797	314 136	241 720	251 786	266 736
Alumina	3 181 874	3 287 971	3 760 359	3 961 982	3 837 495
Unwrought	202 240	250 235	272 836	340 231	238 472
Unwrought alloys	213 152	266 591	337 706	345 995	279 016
Scrap	49 720	77 758	81 551	83 588	61 975
Argentina					
Bauxite	29 071	20 691	20 458	...	...
Alumina	99 479	43 053	136 752	...	...
Alumina hydrate	6 021	7 518	13 679	...	...
Unwrought	48 931	21 570	108	...	...
Brazil					
Bauxite	12 988	14 018	12 364	10 091	15 574
Alumina	10 674	3 335	705	23 981	70 080
Alumina hydrate	1 053	1 321	1 234	354	535
Unwrought	64 848	59 037	62 048	53 070	45 008
Unwrought alloys	14 017	19 071	18 771	7 257	6 809
Scrap	2 382	4 043	8 432	22 234	22 764
Colombia					
Unwrought (a)	...	13 870	13 857	...	...
Uruguay					
Unwrought	20 164	2 033	849	3 350	3 680
Venezuela					
Alumina	61 053	327 872	87 044	150 113	...
Unwrought (a)	109	2 184	31 994	39 913	...
China					
Unwrought (a)(f)	* 286 500	* 163 700	* 108 100	* 154 800	* 54 800
Hong Kong					
Bauxite	9 349	4 789	6 345	7 070	9 400
Alumina	229	228	281	1 081	243
Alumina hydrate	254	863	800	1 937	1 422
Unwrought	25 446	22 878	25 876	28 481	30 515
Scrap	241	458	303	473	468
India (c)					
Alumina	387	422	1 003	782	...
Unwrought	4 981	330	5 508	17 996	...
Unwrought alloys	82	6	29	33	...
Indonesia					
Alumina	4 804	7 633	17 664	21 866	14 358
Unwrought	6 995	8 401	11 623	12 288	15 150
Iran (e)					
Alumina	36 961	19 494	...	...	...
Unwrought	5 222	9 543	...	...	...
Israel					
Unwrought (g)	582	409	18 305	24 790	...

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1975	1976	1977	1978	1979
Japan					
Bauxite	4 600 226	4 276 583	5 318 199	4 742 993	4 597 104
Alumina	561 260	627 417	940 480	758 918	760 793
Unwrought	328 256	340 425	411 624	598 120	748 438
Unwrought alloys	50 077	89 700	122 183	142 084	135 459
Scrap	29 165	69 304	70 470	139 612	181 531
Korea, Republic of					
Alumina	41 772	49 243	49 415	...	...
Unwrought (a)	16 532	32 445	63 380	86 500	82 800
Scrap	1 407	29 629	3 321	...	...
Malaysia					
Alumina	4 332	4 201	5 480	...	...
Unwrought (a)	5 967	8 370	11 740	...	...
Pakistan (d)					
Unwrought	...	7 154	10 171	52 385	10 044
Philippines					
Bauxite	7 589	4 362	7 750	4 112	9 909
Unwrought	6 176	11 417	10 443	8 668	19 352
Unwrought alloys	2 282	5 962	6 549	8 122	9 060
Singapore					
Bauxite	12 612	5 397	3 681	7 242	11 000
Alumina	2 255	4 138	3 919	4 460	7 583
Unwrought	694	3 541	3 842	7 862	6 038
Scrap	352	377	542	399	384
Syria					
Unwrought & scrap	1 250	1 933	2 081	1 508	...
Taiwan					
Bauxite	114 433	166 029	162 569	171 182	209 618
Alumina	5 857	16 456	6 849	39 760	63 652
Alumina hydrate	393	5 086	2 117	2 819	3 876
Unwrought	11 573	36 358	52 479	48 672	52 860
Scrap	5 886	6 208	8 700	10 103	13 768
Thailand					
Bauxite	6 804	3 086	12 316	5 911	...
Alumina	1 105	725	1 340	525	...
Alumina hydrate	2 660	1 022	4 297	3 456	...
Unwrought (a)	18 424	28 327	29 295	34 019	...
Scrap	97	1 006	1 386	456	...
Australia					
Alumina	2 555	3 199	2 197	3 524	4 210
Unwrought (a)	369	256	183	359	4 330
Scrap	1 154	1 420	1 374	1 337	1 463
New Zealand (d)					
Alumina	151 618	297 647	255 829	331 403	320 599
Unwrought	2 220	75	274	180	263

Notes:

- 1 Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
 - 2 In this table the description 'unwrought' aluminium corresponds to item 684.1 of the Standard International Trade Classification (Revision 2) and comprises ingots, blocks, unwrought bars, etc
- (a) Including alloys
(b) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any
(c) Years ended 31 March following that stated
(d) Years ended 30 June of that stated
(e) Years ended 20 March following that stated
(f) IGS estimates, based on known exports from certain countries
(g) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
(h) IGS estimate based on interpretation of official data
(i) See footnote (j)
(j) From 1977 excludes waste and scrap in ingot form for smelting, which is then included with 'Unwrought alloys'

Mine Production of Antimony

tonnes (metal content)

Country	1975	1976	1977	1978	1979
Italy	1 028	1 009	808	931	948
Austria	555	568	561	550	655
Czechoslovakia	724	285	300	300	300
Soviet Union	* 7 500	* 7 700	* 7 700	* 7 000	* 7 500
Spain	80	157	331	442	660
Turkey	1 550	1 784	1 921	1 765	1 890
Yugoslavia	2 183	2 021	2 248	2 676	2 283
Algeria	* 60	* 60	* 60	* 60	* 60
Morocco	1 260	1 426	1 285	2 110	729
South Africa	15 958	10 714	11 831	9 017	12 252
Zimbabwe	400	279	551	121	158
Canada (a)	2 600	3 400	3 200	3 000	2 954
Guatemala	856	1 120	916	230	620
Honduras	103	117	103	149	150
Mexico (c)	3 137	2 546	2 698	2 457	2 872
USA	804	257	553	724	655
Bolivia	13 967	17 409	15 156	12 672	13 019
Peru (e)	122	603	823	895	* 900
Burma	278	468	500	620	635
China	* 12 000	* 12 000	* 12 000	* 13 000	* 15 000
India	238	404	186	—	—
Korea, Republic of	40	10	—	—	—
Malaysia	352	361	264	291	307
Pakistan	196	121	250	100	69
Thailand	3 870	4 534	3 031	3 548	* 3 600
Australia (b)	2 205	1 892	2 089	1 519	1 558
World total (d)	72 100	71 200	69 400	64 200	69 800

(a) Includes Sb content of antimonial lead alloys

(b) Includes Sb content of lead and zinc concentrates

(c) Includes Sb content of antimonial lead

(d) Excludes any antimony ore produced in Afghanistan, Hungary and Iran

(e) Includes Sb content of antimonial lead plus Sb content of ores for export

Antimony

Exports of Antimony

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ore	55	13	31	—	396
Metal	803	902	704	497	173
Oxide	3 100	4 800	4 200	(a)* 4 200	(a)* 3 000
France					
Metal	386	157	219	392	126
Oxide	2 031	3 346	3 189	4 654	4 677
Germany, Federal Republic of					
Ore	7	—	132	—	0
Metal	111	75	216	19	17
Oxide	327	268	366	319	344
Italy					
Metal	1 109	494	1 145	61	20
Oxide	152	115	206	487	301
Netherlands					
Metal	60	66	91	39	136
Oxide	12	133	188	407	474
Austria					
Ore	329	488	336	414	493
Sulphide (b)	—	3	22	0	20
Spain					
Metal	139	323	262	464	593
Sweden					
Metal	108	56	3	12	13
Turkey					
Ore	1 766	2 795	1 819	1 400	...
Metal	205	347	20	565	...
Yugoslavia					
Metal	1 305	775	580	1 485	975
Morocco					
Ore	3 102	3 795	3 495	2 267	1 966
South Africa					
Ore	12 247	18 115	8 452	3 173	11 379
Guatemala					
Ore & concentrate	2 361	1 525	1 579	...	...
Mexico					
Ore & concentrate	9 465	6 115	3 387	4 871	...
Metal	275	190	143	384	...
USA					
Metal	419	471	763	639	488
Oxide	291	294	236	216	630
Bolivia					
Ore (c)(d)	11 784	17 398	13 822	10 527	16 584
Peru					
Ore	817	571	865	...	...
Metal	21	231	429	...	...
Burma					
Ore & concentrate	295	...	...	...	...
China (a)					
Ore & concentrate	* 2 500	* 1 400	* 2 100	* 500	* 2 900
Metal	* 2 800	* 2 000	* 3 000	* 5 000	* 6 000
Oxide	* 500	* 1 200	* 400	* 1 200	* 1 700
Japan					
Metal	...	194	77	102	59
Thailand					
Ore	4 788	6 017	3 989	5 594	...
Metal	229	253	45	73	...
Australia					
Ore & concentrate	1 259	1 324	1 216	3 040	3 041

(a) IGS estimates, based on known imports into certain countries

(b) Believed to be crude liquated sulphide

(c) Sb content

(d) May include metal

Imports of Antimony

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	398	116	828	317	413
Oxide	98	142	349	253	272
Belgium-Luxembourg					
Ore	8 707	11 170	6 823	5 179	6 662
Metal	222	210	550	230	335
Oxide	93	147	104	110	240
Denmark					
Metal	12	13	21	9	...
Oxide	13	23	10	27	...
France					
Ore	5 045	10 829	7 679	9 984	10 794
Metal	527	563	451	818	886
Oxide	407	193	318	454	434
Germany, Federal Republic of					
Ore	2 129	3 514	2 578	3 040	3 126
Metal	841	1 064	761	747	567
Oxide	2 393	3 010	3 243	3 406	3 896
Italy					
Ore	728	1 090	720	—	—
Metal	185	230	121	152	121
Oxide	229	363	392	406	626
Netherlands					
Metal	43	47	128	90	132
Oxide	466	863	897	1 059	1 141
Austria					
Metal	97	171	92	52	56
Finland					
Metal	8	6	5	39	35
Greece					
Metal	21	40	17	—	13
Norway					
Metal	52	40	17	22	28
Spain					
Ore	335	992	1 054	564	664
Metal	137	99	321	126	199
Oxide	123	237	202	307	242
Sweden					
Metal	47	25	25	21	19
Switzerland					
Metal	122	160	137	126	28
Yugoslavia					
Ore & concentrate	3 276	1 935	2 209	2 576	3 261
Metal	127	118	170	145	...
Algeria					
Metal	53	30	115	35	...
Morocco					
Metal	4	12	9	2	9
Canada					
Oxide	395	734	626	906	794
Mexico					
Oxide	21	41	...	...	...
USA					
Ore	18 811	19 001	7 296	7 867	14 284
Liquated	67	37	235	47	25
Metal	2 468	2 584	2 251	4 015	3 376
Oxide	8 937	10 533	8 746	9 702	12 384

Antimony

Imports of Antimony

tonnes

Country	1975	1976	1977	1978	1979
Argentina					
Ore	580	533	368	...	...
Brazil					
Ore	1 597	1 721	494	655	1 641
Metal	47	129	81	284	177
Oxide	225	340	386	392	597
Sulphide	8	3	3	5	9
Venezuela					
Metal	60	101	142	179	...
India					
Ore	724	1 523	1 453	106	...
Metal	11	46	526	744	...
Oxide (a)	42	68	107	114	...
Japan					
Ore & concentrate	9 012	12 703	7 501	6 553	6 702
Metal	454	1 055	1 239	1 611	3 202
Sulphide	-	...	41	43	16
Malaysia					
Metal	30	60	52	...	...
Australia					
Metal	497	32	58	87	51

(a) Years ended 31 March following that stated

Production of White Arsenic

Country	1975	1976	1977	1978	1979
France (a)(b)	5 495	7 276	6 042	5 280	* 7 000
Germany, Federal Republic of	320	360	360	* 360	...
Portugal	256	278	222	253	...
Soviet Union	* 7 350	* 7 400	* 7 500	* 7 600	* 7 700
Spain	12	* 10	...	...	...
Sweden (b)	11 688	6 990	6 000	5 400	* 5 400
Namibia (c)	6 663	6 985	* 7 300	* 7 300	* 7 000
Mexico (d)	6 156	5 498	5 742	6 244	...
Brazil	13	—	—	—	...
Peru	1 260	789	1 367	1 257	* 1 300
Japan	60	* 60	...	...	...
Korea, Republic of	* 100	706	491	548	...

Notes:

- 1 The production data in this table does not include calculated trioxide equivalents for output reported as arsenic metal
 - 2 Arsenic is known to have been produced also in the following countries: Argentina, Austria, Belgium, China, Czechoslovakia, German Democratic Republic, Finland, Hungary, United Kingdom, Yugoslavia and Zimbabwe
- (a) Byproduct of complex gold ores
(b) Excluding metallic arsenic
(c) Output of Tsumeb Corp. only trioxide equivalent of reported black arsenic
(d) Including trioxide equivalent of black arsenic

Arsenic

Exports of Arsenic

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
White arsenic	8	68	18	81	853
France					
White arsenic	8 940	5 759	7 210	12 937	10 264
Metallic arsenic	2	117	378	146	41
Germany, Federal Republic of					
White arsenic	287	140	44	56	167
Italy					
White arsenic	1	1	233	25	20
Netherlands					
White arsenic (b)	163	128	29	2	81
Portugal					
White arsenic	(c) 176	(c) 87	10	(c) 106	...
South Africa (a)					
White arsenic	* 4 000	* 2 000	...	...	...
Mexico					
White arsenic, pure	3 262	4 667	3 234	2 802	...
White arsenic, crude	—	50	10	—	...
Hong Kong					
White arsenic (Re-exports)	16	17	38	8	7
Japan					
White arsenic	6	5	12	6	...

Note: This table does not purport to be comprehensive: data relating to arsenic are not fully recorded by many countries

(a) IGS estimates, based on known imports into certain countries

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(c) Includes arsenic acid

Imports of Arsenic

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
White arsenic	4 611	4 879	* 5 600	...	...
Metallic arsenic (a)	73	177	117	119	137
Belgium-Luxembourg					
White arsenic	112	39	29	40	9
Denmark					
White arsenic	2	31	0	3	...
France					
Metallic arsenic	97	102	89	60	113
Germany, Federal Republic of					
White arsenic	564	534	576	508	825
Metallic arsenic (a)	32	61	40	56	54
Italy					
White arsenic	1 444	1 186	865	785	817
Metallic arsenic (a)	208	105	124	78	63
Netherlands					
White arsenic (f)	521	508	194	291	147
Austria					
White arsenic (e)	43	41	26	24	7
Finland					
White arsenic (e)	719	836	773	916	1 097
Norway					
White arsenic (e)	68	89	59	...	...
Spain					
White arsenic	455	596	483	308	299
Metallic arsenic	15	5	12	14	19
Switzerland					
White arsenic (e)	43	30	65	26	58
Turkey					
White arsenic	50	77	55	81	143
Yugoslavia					
White arsenic	49	111	50	...	66
Metallic arsenic	25	18	21	36	138
Morocco					
White arsenic	2	0	10	—	0
South Africa					
White arsenic	105	90	165	—	—
Metallic arsenic	2	17	13	17	10
USA					
White arsenic	10 898	3 884	5 773	9 862	11 340
Metallic arsenic	438	261	323	335	360
Argentina					
White arsenic	367	396	207	...	...
Brazil					
White arsenic	651	1 255	600	562	830
Metallic arsenic	17	38	34	39	59
Hong Kong					
White arsenic	40	46	55	10	18
India (b)					
White arsenic	340	986	500	580	...
Metallic arsenic	12	34	18	...	...
Indonesia					
White arsenic	43	27	91	142	107
Iran (d)					
White arsenic	40	66	...	...	...
Japan					
White arsenic	906	1 359	1 076	751	999
Korea, Republic of					
White arsenic	3	2	11	...	...
Malaysia					
White arsenic	4 386	834	43	...	...

Arsenic

Imports of Arsenic

tonnes

Country	1975	1976	1977	1978	1979
Philippines					
White arsenic	108	106	135	152	246
Taiwan					
White arsenic	93	79	244	213	681
Thailand					
White arsenic	12	72	75	58	...
Australia					
White arsenic	366	584	685	456	...
New Zealand (c)					
White arsenic (e)	532	1 701	2 009	1 872	2 070

Note: This table does not purport to be comprehensive: data relating to arsenic are not fully recorded by many countries

(a) May include some tellurium

(b) Years ended 30 March following that stated

(c) Years ended 30 June of that stated

(d) Years ended 20 March following that stated

(e) Includes pentoxide and/or arsenic acid

(f) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Production of Asbestos

tonnes

Country	1975	1976	1977	1978	1979
Italy	146 984	164 788	149 327	135 401	143 931
Bulgaria	...	* 300	* 500	* 500	* 500
Finland	2 791	—	—	—	—
Soviet Union	* 1 900 000	* 2 290 000	* 2 460 000	* 2 435 000	* 2 470 000
Turkey	15 496	9 941	3 975	13 380	* 17 210
Yugoslavia	12 336	12 830	9 036	10 304	9 959
Egypt	479	1 018	478	349	* 350
South Africa					
Amosite	88 411	78 898	66 983	40 526	39 058
Anthophyllite	1 912	1 506	550	—	—
Crocidolite	164 727	178 411	200 966	137 171	118 301
Chrysotile	99 660	111 025	111 575	79 511	91 828
Swaziland					
Chrysotile	37 601	39 327	38 046	36 951	34 294
Zimbabwe					
Chrysotile	261 542	281 455	273 194	248 861	259 891
Canada					
Chrysotile	1 055 667	1 536 091	1 517 360	1 421 808	1 501 000
USA (a)	89 497	104 873	92 256	93 097	93 354
Argentina	1 130	889	686	697	* 700
Brazil	73 978	92 703	92 773	122 815	* 120 000
China	* 150 000	* 175 000	* 200 000	* 230 000	* 250 000
Cyprus					
Chrysotile	31 602	34 518	36 684	34 359	35 472
India					
Amphibole	20 312	24 119	22 177	24 623	37 816
Japan					
Amphibole & chrysotile	4 612	7 703	6 719	* 6 720	* 8 000
Korea, Republic of	4 345	4 762	6 180	13 616	14 804
Taiwan	1 737	853	673	2 031	2 957
Australia					
Chrysotile	47 922	60 642	50 601	62 383	* 70 000
World total	4 200 000	5 200 000	5 300 000	5 200 000	5 300 000

(a) Sold or used by producers

Asbestos

Exports of Unmanufactured Asbestos

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 698	1 996	705	522	616
Belgium-Luxembourg	1 721	269	225	221	131
Denmark	112	182	97	268	...
France	2 050	2 314	1 647	532	1 348
Germany, Federal Republic of	73 770	67 953	45 551	44 215	65 365
Italy	81 073	83 752	71 013	68 958	74 478
Netherlands	189	199	255	393	56
Austria	183	449	102	81	2
Finland	3 512	—	3	—	41
Soviet Union	613 303	* 630 000	* 600 000	* 600 000	* 450 000
Sweden	173	119	225	1	112
Switzerland	82	17	74	37	142
Yugoslavia	3 170	2 163	2 159	1 902	1 983
Mozambique	1 148	...	—	...	...
South Africa (a)	* 368 000	* 335 000	* 363 000	* 342 000	* 337 000
Swaziland	41 219	41 847	34 853	38 083	37 065
Canada					
Crude	183	83	1	1	20
Fibre	570 417	708 494	705 693	689 549	719 071
Shorts	515 010	769 480	709 570	708 389	741 945
USA	33 064	42 568	34 144	41 782	80 667
Cyprus	28 378	33 552	35 341	29 338	38 990
Hong Kong (Re-exports)	705	433	215	225	1 844
Japan	2 158	3 529	1 226	756	147
Singapore	1 670	1 098	5 203	5 901	9 623
Australia	24 524	40 145	20 510	37 094	49 756

(a) IGS estimates, based on known imports into certain countries

Imports of Unmanufactured Asbestos

Country	1975	1976	1977	1978	1979
United Kingdom	139 185	144 938	127 217	117 617	116 665
Belgium-Luxembourg	60 549	70 373	54 219	53 737	50 754
Denmark	24 388	30 625	26 926	21 470	...
France	138 637	143 625	114 790	110 612	126 476
Germany, Federal Republic of	386 188	382 570	399 278	345 817	386 383
Irish Republic	6 848	5 275	6 654	8 014	7 564
Italy	66 273	77 179	64 950	47 189	77 151
Netherlands	35 852	49 466	39 909	41 357	28 235
Austria	34 343	38 552	39 074	30 807	23 912
Bulgaria	28 812	...	...	...	...
Czechoslovakia	43 494	44 750	1 685	44 028	41 804
Finland	10 132	5 790	5 624	5 415	3 019
German Democratic Republic	65 725	58 002	71 400	62 600	...
Greece	13 306	20 411	19 650	14 756	15 214
Hungary	32 604	36 035	41 632	39 100	37 540
Iceland	7	9	12	11	7
Norway	5 629	5 134	2 269	517	490
Poland	94 412	108 261	87 723	102 376	...
Portugal	5 778	13 028	18 774	17 111	11 208
Romania	41 299	...	...	...	...
Spain	94 114	113 053	105 763	79 338	74 000
Sweden	15 529	10 366	2 555	1 334	861
Switzerland	17 262	18 929	22 682	22 794	20 689
Turkey	16 357	19 681	16 519	17 105	10 247
Yugoslavia	52 138	42 675	57 032	47 796	47 475
Algeria	4 582	11 852	15 872	9 415	...
Canary Islands	288	352	1 145	236	161
Egypt	5 477	13 322	15 380	11 334	476
Ghana	13 188	9 874	...	...	...
Kenya	743	921	1 572	797	1 348
Libya	1 335	1 846	2 641	5 033	...
Morocco	7 160	6 621	7 812	5 649	4 756
Mozambique	740	2 570	...	...	...
Nigeria	29 024	55 258	...	...	...
Senegal	1 132	...	1 679	...	...
South Africa	28 560	30 428	24 523	15 151	18 205
Tunisia	1 619	1 474	2 567	1 749	...
Uganda	28	147	...	...	...
Zaire	672	1 673	1 013	617	...
Zambia	2 765	3 788	1 234	...	...
Canada	5 166	6 002	4 112	756	1 953
Costa Rica	2 974	1 417	1 389	...	...
El Salvador	3 866	2 637	4 242	...	...
Guatemala	1 808	2 553	3 297	...	...
Jamaica	1 307	32	55	352	...
Mexico	60 395	50 668	44 961	60 086	...
Nicaragua	1 207	1 560	...	...	2
Panama	83	603	532	...	...
USA					
Amosite	3 533	1 428	529	1 170	471
Crocidolite	10 603	9 322	10 922	16 865	13 828
Chrysotile	462 336	550 817	520 944	531 416	487 185
Other unmanufactured	12 095	35 225	18 287	20 975	11 606
Argentina	15 548	20 868	20 334	...	...
Brazil	29 800	33 882	39 197	37 650	35 763
Colombia	...	19 954	19 341	...	...
Uruguay	1 927	1 193	2 652	1 463	2 681
Venezuela	15 548	17 624	14 356	19 385	...

Asbestos

Imports of Unmanufactured Asbestos

tonnes

Country	1975	1976	1977	1978	1979
Dubai	...	3 315	7 278	8 337	4 205
Hong Kong	907	851	318	2 406	1 844
India	41 514	47 167	65 968	46 219	...
Indonesia	4 845	9 340	11 363	14 781	14 616
Iran (a)	24 814	40 109	...	...	...
Iraq	1 482	1 306	...	...	...
Israel (c)	856	3 542	5 426	4 879	...
Japan	253 097	325 346	300 636	234 901	291 531
Korea, Dem. P.R. of	* 3 300	...	...	...	...
Korea, Republic of	56 960	74 206	70 255	...	...
Kuwait	5 666	69	8 248	6 285	...
Malaysia	19 932	19 281	21 141	...	...
Pakistan (b)	...	5 647	14 428	8 738	6 638
Philippines	1 899	2 471	4 286	4 822	6 570
Saudi Arabia	10 405	11 339	15 572	...	...
Singapore	10 341	9 154	13 376	9 168	12 318
Sri Lanka	789	2 896	2 288	1 939	...
Syria	3 391	1 349	5 589	3 352	...
Taiwan	13 363	19 157	25 343	24 892	29 103
Thailand	42 521	56 688	52 455	50 690	...
Australia	49 794	60 490	74 267	42 061	22 941
New Zealand (b)	12 484	9 168	5 095	8 525	9 818

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Barium Minerals

Country	1975	1976	1977	1978	1979
United Kingdom	52 000	50 000	57 000	54 409	45 000
France	121 669	181 965	211 090	225 000	235 000
Germany, Federal Republic of	254 902	262 387	265 593	168 586	161 661
Irish Republic	295 000	323 000	373 000	343 753	319 000
Italy	212 416	179 412	152 646	236 832	214 630
Austria	279	81	192	242	305
Czechoslovakia	...	...	...	65 000	67 803
German Democratic Republic	* 31 000	* 31 000	* 31 000	* 35 000	* 36 000
Greece	174 596	90 620	38 579	44 691	48 007
Poland	53 548	80 342	88 700	90 300	96 000
Portugal	2 429	90	590	503	704
Romania	* 116 000	* 85 000	* 85 000	* 87 300	* 88 000
Soviet Union	* 350 000	* 400 000	* 450 000	* 475 000	* 500 000
Spain	77 095	91 115	84 280	71 457	* 91 000
Turkey	66 254	188 266	143 510	86 485	46 134
Yugoslavia	60 645	56 122	52 245	42 800	* 50 000
Algeria	67 700	74 543	42 303	* 73 000	* 90 000
Egypt	749	339	746	* 1 000	* 1 000
Kenya	376	359	429	303	363
Morocco	135 790	137 463	149 920	176 813	* 190 000
South Africa	795	1 915	2 500	2 355	2 494
Swaziland	219	368	—	—	—
Tunisia	10 411	22 313	16 049	16 358	* 15 000
Zimbabwe	1 272	1 480	2 798	878	449
Canada	81 356	100 266	116 950	105 741	* 70 000
Cuba	5 714	...	...	...	...
Mexico	299 985	270 063	270 674	231 485	151 162
USA (b)	1 196 000	1 119 594	1 355 216	1 916 000	* 1 800 000
Argentina	37 431	40 546	30 571	33 061	* 36 000
Brazil	53 675	51 238	39 575	54 033	* 55 000
Chile	6 299	21 243	65 038	182 320	* 181 000
Colombia	3 000	3 100	3 450	3 500	* 3 600
Peru	331 700	330 689	434 984	362 000	* 435 000
Afghanistan (c)	6 400	5 100	14 100	12 930	2 722
Burma (a)	25 720	15 681	23 805	42 166	* 43 000
China	* 250 000	* 299 000	* 350 000	* 400 000	* 500 000
India	175 868	235 068	330 989	388 582	387 815
Iran (c)	149 359	* 230 000	* 230 000	* 200 000	* 31 000
Japan	34 180	66 409	72 916	77 036	* 75 000
Korea, Dem. P.R. of	* 120 000	* 120 000	* 120 000	* 110 000	* 110 000
Korea, Republic of	2 062	4 174	2 645	1 005	728
Malaysia	814	6 096	12 074	5 079	1 401
Pakistan	4 597	9 052	17 718	16 303	* 25 000
Philippines	3 803	3 199	5 393	5 548	* 5 500
Thailand	258 387	151 343	118 466	274 564	378 654
Australia	23 460	14 133	11 675	10 844	10 886
World total (d)	5 200 000	5 400 000	5 900 000	6 700 000	6 600 000

(a) Years ended 31 March following that stated

(b) Sold or used by producers

(c) Years ended 20 March following that stated

(d) Excluding barium minerals known to have been produced in Bulgaria

Barium

Exports of Barium Minerals

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	3 993	6 630	3 904	3 424	4 622
Belgium-Luxembourg	434	199	315	408	430
France	22 552	58 560	99 353	116 535	121 722
Germany, Federal Republic of	46 992	65 582	32 761	38 178	38 720
Irish Republic	* 279 000	...	...	322 853	302 317
Italy	16 079	24 314	20 264	73 863	89 352
Netherlands (b)	81 545	102 895	103 708	94 774	77 548
Bulgaria	93 913	...	...	...	...
Greece	83 402	33 695	36 003	48 256	38 587
Norway	2 979	13 913	13 228	4 627	1 627
Portugal	234	2 466	1 000	3	283
Romania	626	...	...	...	...
Spain	50 666	52 801	58 070	90 793	74 677
Turkey	35 406	175 191	154 911	124 123	95 844
Yugoslavia	47 732	41 665	25 309	16 495	13 965
Morocco	125 005	120 556	181 244	224 842	227 346
Swaziland	94	369	—	...	...
Tunisia	5 000	4 000	157	1 109	...
Canada	45 606	60 297	69 421	56 783	2 038
Mexico	114 492	106 728	122 204	98 227	...
USA	52 060	37 402	44 952	33 179	96 117
China (d)	* 78 200	* 63 400	* 77 300	* 121 300	* 66 000
India	173 610	151 426	177 188	201 042	...
Indonesia	35 011	5 186	3 402	12 546	7 159
Israel (c)	411	163	761	708	...
Japan	95	...	1 250	2 894	1 002
Korea, Dem. P.R. of	* 94 900	...	...	...	...
Malaysia	5 342	1 747	895	...	...
Pakistan (a)	...	...	500	—	3 750
Singapore	54 836	42 229	40 021	35 615	52 521
Thailand	188 584	107 186	202 725	195 122	...
Australia	13 957	4 017	1 304	969	1 232

Note: Trade in barium minerals is reported under item 278.92 of the Standard International Trade Classification (Revision 2) and is described as "barytes and witherite". However, it is thought that very little, if any, witherite is traded

(a) Years ended 30 June of that stated

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(c) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

(d) IGS estimates, based on known imports into certain countries

Imports of Barium Minerals

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	28 200	36 448	50 616	80 315	90 355
Belgium-Luxembourg	7 829	8 477	8 318	8 293	8 082
Denmark	5 325	11 264	4 471	5 863	...
France	44 429	11 411	11 814	8 983	14 427
Germany, Federal Republic of	91 156	124 162	175 356	196 465	197 659
Italy	9 055	7 748	18 516	13 871	15 634
Netherlands (c)	118 777	121 874	130 261	124 608	201 894
Austria	3 288	4 008	3 785	6 976	3 227
Finland	2 038	1 272	1 154	952	1 224
Norway	75 914	51 589	61 121	63 204	102 981
Poland	24 442	35 058	14 280	21 653	...
Portugal	2 135	485	413	458	645
Romania	5 704	...	...	...	...
Soviet Union	329 544	* 350 000	* 400 000	* 450 000	* 450 000
Spain	847	10 197	809	3 321	2 518
Sweden	5 381	6 153	5 390	4 660	5 493
Switzerland	1 948	3 089	3 324	2 880	2 291
Yugoslavia	1 393	760	1 110	1 206	1 204
Algeria	27 495	45 100	67 388	98 895	...
Cameroon	8 104	2 725	7 432	15 750	...
Gabon	322	476	—	—	...
Ivory Coast	90	106	3 243	3 505	345
Senegal	20	20	76	...	...
South Africa	2 718	2 685	3 444	2 437	19 169
Tunisia	4 949	8 924	3 458	1 568	...
Canada	4 479	18 097	5 979	15 635	8 390
Trinidad & Tobago	30 545	30 474	54 024	61 870	...
USA	609 077	833 257	875 280	1 191 915	1 374 721
Brazil	221	252	163	240	156
Venezuela	29 923	41 728	60 914	87 152	...
Hong Kong	198	1 013	291	258	335
Indonesia	69 730	51 835	760	22 295	19 881
Iran (b)	797	206	...	...	...
Iraq	27 540	35 752	...	...	...
Japan	11 164	16 516	32 771	21 278	24 565
Malaysia	9 545	8 270	3 946	...	...
Philippines	2 060	272	632	1 169	1 054
Saudi Arabia	2 603	30 550	12 552	...	...
Singapore	111 539	37 481	28 532	14 858	50 774
Syria	35	810	123	2 326	...
Taiwan	1 080	7 386	2 880	10 340	2 870
Australia	947	1 435	1 527	541	1 171
New Zealand (a)	7 499	5 623	1 747	1 169	1 582

Note: Trade in barium minerals is reported under item 278.92 of the Standard International Trade Classification (Revision 2) and is described as "barytes and witherite". However, it is thought that very little, if any, witherite is traded

(a) Years ended 30 June of that stated

(b) Years ended 20 March following that stated

(c) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Production of Bentonite and Fuller's Earth

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Fuller's earth (a)	164 000	163 000	159 000	167 000	171 000
France					
Bentonite	20 299	17 297	8 063	10 144	* 14 400
Italy					
Bentonite	442 909	264 935	292 428	224 208	282 446
Fuller's earth	32 281	39 840	6 344	4 493	* 12 000
Greece					
Bentonite	428 466	316 769	545 570	385 067	567 605
Hungary					
Bentonite	87 900	71 148	80 000	82 000	72 488
Poland					
Bentonite	* 50 000	* 50 000	* 50 000	* 50 000	* 50 000
Romania					
Bentonite	* 62 800	* 63 000	* 63 000	* 65 000	* 65 000
Spain					
Bentonite	75 351	96 008	102 300	108 318	* 109 000
Turkey					
Bentonite	32 656	21 126	4 358	8 280	7 937
Yugoslavia					
Bentonite	98 000	106 000	116 000	...	...
Algeria					
Bentonite	24 000	24 514	24 337	35 700	* 36 000
Fuller's earth	4 290	3 186	4 263	4 847	* 5 000
Egypt					
Bentonite	...	...	4 616	4 662	5 085
Morocco					
Bentonite	3 051	4 019	4 807	* 4 990	...
Fuller's earth	23 720	36 768	21 025	29 880	...
Mozambique					
Bentonite	2 180	2 298	2 744	* 3 000	* 3 000
Senegal					
Fuller's earth (b)	16 699	4 380	4 620	5 500	* 7 250
South Africa					
Bentonite	37 549	39 602	37 221	34 519	46 394
Mexico					
Bentonite	32 507	55 583	59 169	33 795	* 36 000
Fuller's earth	38 197	20 108	61 369	39 958	* 41 000
USA					
Bentonite (c)	2 929 543	3 193 637	3 398 757	4 053 302	4 100 000
Fuller's earth (c)(f)	1 078 701	1 217 063	1 295 756	1 388 000	1 480 000
Argentina					
Bentonite	116 000	132 313	114 836	* 119 200	* 145 000
Fuller's earth	236	3 133	3 090	* 3 500	* 4 000
Brazil					
Bentonite	116 785	143 218	108 395	167 614	* 172 000
Colombia					
Bentonite	* 1 000	* 1 200	* 1 200	* 1 200	* 1 200
Peru					
Bentonite	* 25 000	39 545	41 545	37 215	* 41 000
Burma (d)					
Bentonite	204	533	1 349	* 1 590	* 1 500
Cyprus					
Bentonite	12 193	5 080	13 209	8 500	5 300
India					
Bentonite	88 858	137 514	150 568	153 026	...
Fuller's earth	12 345	16 144	13 517	16 297	...
Iran					
Bentonite	50 000	* 50 000	* 25 000	* 40 000	...
Israel					
Bentonite (e)	3 077	8 086	6 952	* 6 900	* 8 000
Japan					
Bentonite	403 666	* 400 000	* 400 000	* 400 000	* 400 000

Production of Bentonite and Fuller's Earth

tonnes

Country	1975	1976	1977	1978	1979
Pakistan					
Bentonite	675	747	1 089	1 113	* 1 100
Fuller's earth	12 140	16 000	18 000	* 18 000	* 18 100
Philippines					
Bentonite	661	2 117	2 279	1 569	* 1 502
Australia					
Bentonite	3 350	11 954	5 603	4 656	...
Fuller's earth	18	9	50	68	* 50
New Zealand					
Bentonite	5 246	1 042	2 633	9 824	4 954
World total Bentonite	5 159 000	5 264 000	5 668 000	6 171 000	6 496 000
World total Fuller's earth	1 383 000	1 520 000	1 587 000	1 678 000	1 784 000

Notes:

- 1 Bentonites consist of montmorillonite (one of the smectite group of clay minerals) and occur in two main varieties, calcium bentonite, the most commonly occurring, and sodium bentonite, industrially the more important. Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process. In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer to attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties
 - 2 Austria, Canada, China, Federal Republic of Germany, Namibia, Soviet Union and Zimbabwe are also believed to produce bentonite
- (a) IGS estimates of saleable production based on data from producing companies
 (b) Attapulgite
 (c) Sold or used by producers
 (d) Years ended 31 March following that stated
 (e) A low grade form of bentonite, known as metabentonite
 (f) Mostly attapulgite

Bentonite and Fuller's Earth

Exports of Bentonite and Fuller's Earth

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Bentonite	15 483	17 862	13 680	13 954	11 975
Fuller's earth	...	2 613	3 361	3 772	3 866
Belgium-Luxembourg					
Bentonite	3 551	8 067	7 845	8 273	11 574
Fuller's earth	1 138	166	988	441	1 326
Denmark					
Bentonite	26	116	46	21	...
France					
Bentonite	7 182	5 722	10 073	10 371	5 887
Fuller's earth	3 589	2 736	4 384	1 016	929
Germany, Federal Republic of					
Bentonite	32 856	44 335	30 494	25 014	26 250
Fuller's earth	402	226	582	1 086	3 157
Italy					
Bentonite	19 061	23 501	18 516	20 217	31 246
Netherlands					
Bentonite (a)	12 825	10 292	17 107	23 839	26 462
Fuller's earth (a)	164	273	1 098	1 060	822
Greece					
Bentonite	336 007	381 388	381 284	332 008	450 173
Hungary					
Bentonite	23 128	18 537	19 400	14 156	14 797
Spain					
Bentonite	24 200	25 560	40 090	37 881	39 876
Sweden					
Bentonite	2	1	17	11	14
Turkey					
Bentonite	10 200	10 150	520	3 394	...
Yugoslavia					
Bentonite	848	303	38	136	297
Algeria					
Bentonite (b)	800	460	150	100	...
Morocco					
Bentonite	1 000	1	50	812	0
Fuller's earth	18 036	10 303	11 194	10 965	12 634
Mozambique					
Bentonite (c)	1 430	1 760	2 474	...	...
Senegal					
Fuller's earth (d)	...	4 540	4 400	...	...
South Africa					
Bentonite	1 753	1 806	1 216	874	1 064
Mexico					
Bentonite	56	6	9	23	...
USA					
Bentonite	632 630	714 061	715 394	656 248	773 674
Fuller's earth	38 289	38 350	40 946	53 654	67 081
Argentina					
Bentonite	6 560	7 494	9 984	...	...

Exports of Bentonite and Fuller's Earth

tonnes

Country	1975	1976	1977	1978	1979
India					
Bentonite	9 665	12 631	18 538	19 781	...
Fuller's earth	110	21	1 332	1 242	...
Kuwait					
Bentonite	22 717	...	11 581	21 012	...
Singapore					
Bentonite	—	611	893	1 539	21 600
Taiwan					
Bentonite	960	800	8	27	80

Notes:

1. See note 1 to production table
2. The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 2) 278.21. Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 598.92(b) are excluded. However, some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Standard International Trade Classification (Revision 2) 598.92(b), e.g. Italy

(a) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(b) Including crude kaolin

(c) May include other clays

(d) Attapulgit

Imports of Bentonite and Fuller's Earth

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Bentonite	45 363	48 402	76 645	46 083	74 861
Fuller's earth	...	3 060	2 270	103	522
Belgium-Luxembourg					
Bentonite	22 654	27 822	26 556	28 628	24 553
Fuller's earth	3 645	355	357	4 261	12 445
Denmark					
Bentonite	2 084	2 169	2 867	3 612	...
France					
Bentonite	102 423	93 080	96 482	87 235	92 464
Fuller's earth	1 370	1 195	863	1 283	2 028
Germany, Federal Republic of					
Bentonite	43 533	93 290	77 527	45 879	66 841
Fuller's earth	8 870	8 502	16 360	6 785	5 282
Italy					
Bentonite	23 418	42 484	64 620	54 673	29 912
Fuller's earth	2 163	1 547	2 289	2 435	1 991
Netherlands					
Bentonite (a)	41 956	31 048	35 186	54 913	62 633
Fuller's earth (a)	4 487	4 338	3 156	3 784	2 265
Austria					
Bentonite	629	541	651	514	594
German Democratic Republic					
Bentonite	16 876	...	...	...	...
Greece					
Bentonite	359	335	—	243	153
Norway					
Bentonite	...	...	...	31 442	39 185
Fuller's earth	344	357	221	910	112
Portugal					
Bentonite	11 121	15 622	21 274	22 991	...
Spain					
Bentonite	49 873	38 836	49 390	28 285	35 277
Sweden					
Bentonite	3 899	4 424	3 185	3 189	7 292
Turkey					
Bentonite	27	5	7	3	...
Yugoslavia					
Bentonite	424	343	759	16	19
Algeria					
Bentonite (b)	4 511	8 541	6 768	7 193	...
Ivory Coast					
Bentonite	53	371	403	508	461
Morocco					
Bentonite	40	2	500	25	0
Senegal					
Bentonite	3 996	...	1 957	...	...
Tunisia					
Bentonite (b)	18 701	11 032	17 234	15 034	...
Canada					
Bentonite	242 183	274 095	358 724	295 713	612 757
Fuller's earth	1 833	571	2 356	226	1 483
Mexico					
Bentonite	173	299	1 488	4 522	...
USA					
Bentonite	2 137	87	123	43	74
Fuller's earth	59	20	62	76	168
Brazil					
Bentonite	13 099	14 045	16 193	14 354	21 594
Peru					
Bentonite	3 006	850	876	...	...
Uruguay					
Bentonite	4	97	80	162	323
Venezuela					
Bentonite	7 419	19 233	26 817	27 357	...

Imports of Bentonite and Fuller's Earth

tonnes

Country	1975	1976	1977	1978	1979
India					
Bentonite	7	18	6	14	...
Fuller's earth	143	231	25	471	...
Indonesia					
Bentonite	4 782	15 514	8 461	25 313	9 164
Korea, Republic of					
Bentonite	801	547	592	...	...
Kuwait					
Bentonite	38 685	...	13 716	35 607	...
Malaysia					
Bentonite	2 307	2 572	1 524	...	...
Fuller's earth	2 490	3 325	7 601	...	...
Pakistan (c)					
Fuller's earth	...	25	175	561	306
Philippines	1 045	1 584	1 082	9 663	10 257
Singapore					
Bentonite	—	2 741	4 925	4 802	46 377
Taiwan					
Bentonite	2 241	3 903	5 375	5 077	6 895
Thailand					
Bentonite	...	...	1 622	2 163	...
Australia					
Bentonite	54 736	22 204	13 191	30 355	57 241

Notes:

1. See note 1 to production table
2. The figures in this table refer to natural and sodium-exchanged bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 278.21. Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 598.92(b) are excluded. However, some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Standard International Trade Classification (Revision 2) 598.92(b) e.g. Italy

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Including crude kaolin

(c) Years ended 30 June of that stated

Bismuth

Mine Production of Bismuth

tonnes (metal content)

Country	1975	1976	1977	1978	1979
France	73	100	73	79	* 60
Germany, Federal Republic of	* 11	* 10	* 10	* 10	* 10
Italy	—	—	8	9	19
Romania	* 80	* 80	* 80	* 80	* 80
Soviet Union	* 60	* 60	* 65	* 70	* 73
Sweden	* 15	* 15	* 15	* 15	* 14
Yugoslavia	55	78	74	13	23
Uganda	* 4	* 5	* 3	* 1	* 5
Canada (a)	157	130	165	145	112
Mexico	445	557	729	978	863
USA	* 400	* 400	* 400	* 400	* 400
Bolivia	603	612	680	482	10
Peru (a)	505	521	585	* 590	635
China	* 250	* 250	* 250	* 300	* 300
Japan	651	682	698	615	* 640
Korea, Republic of	113	174	134	122	87
Australia	883	769	932	930	* 950
World total (b)	4 300	4 400	4 900	4 800	4 300

Note: The figures in this table are in some instances derived from reported bismuth content of refined and impure metal plus recoverable bismuth in ores and concentrates exported. Production for some countries may include bismuth produced from imported ores but it is thought that any resulting duplication is insignificant in the countries shown

(a) Includes Bi content of bullion and concentrates exported

(b) In addition to the countries listed, Brazil, Bulgaria, German Democratic Republic and Namibia are believed to produce bismuth

Exports of Bismuth

Country	1975	1976	1977	1978	1979
United Kingdom					
Bismuth compounds	...	34	28	58	16
Metal	313	285	310	399	255
France					
Bismuth compounds	212	283	289	292	102
Metal	107	107	72	7	49
Germany, Federal Republic of					
Bismuth compounds	144	121	98	105	63
Metal	401	526	462	517	407
Italy					
Bismuth compounds	132	88	72	227	696
Metal	11	18	31	30	6
Netherlands					
Bismuth compounds (a)	40	27	33	25	37
Metal	41	50	46	66	27
Yugoslavia					
Bismuth compounds	10	67	21	11	16
Metal	33	19	2	—	—
Mexico					
Metal	405	304	331	187	...
USA					
Metal	158	75	51	163	198
Bolivia					
Ores (b)	28	40	52	14	—
Metal	584	264	483	117	46
Japan					
Metal	362	313	302	287	181
Korea, Republic of					
Metal	150	76	186	...	...

(a) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(b) Bi content

Bismuth

Imports of Bismuth

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	353	327	394	325	335
Belgium-Luxembourg					
Bismuth compounds	49	64	56	37	18
France					
Bismuth compounds	115	72	58	4	44
Metal	640	737	644	346	322
Germany, Federal Republic of					
Bismuth compounds	6	19	16	21	22
Metal	259	246	160	113	211
Italy					
Bismuth compounds	26	56	38	24	21
Metal	160	103	96	62	55
Netherlands					
Bismuth compounds (a)	102	155	86	171	152
Metal	130	49	55	52	54
Spain					
Metal	129	161	253	96	102
Turkey					
Bismuth compounds	13	21	17	8	...
Yugoslavia					
Bismuth compounds	27	16	17	5	6
Metal	4	24	31	18	5
Morocco					
Bismuth compounds	19	11	16	19	5
USA					
Metal	604	1 056	913	1 206	983
Argentina					
Metal	20	20	13	...	...
Brazil					
Bismuth compounds	9	9	9	10	0
Metal	21	27	23	34	46
India					
Metal	1	2	30	97	...
Australia					
Metal	5	14	14	22	13

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Bromine

kilograms

Production of Bromine

Country	1975	1976	1977	1978	1979
United Kingdom	28 300 000	29 900 000	24 700 000	25 100 000	29 162 000
France	16 770 000	15 180 000	15 570 000	16 200 000	19 000 000
Germany, Federal Republic of	4 270 000	4 154 000	3 736 000	3 893 000	4 020 000
Italy	670 000	588 000	* 600 000	* 600 000	* 600 000
Soviet Union	* 12 700 000	* 13 600 000	* 15 000 000	* 15 000 000	* 15 000 000
Spain	380 000	* 400 000	* 400 000	* 400 000	* 400 000
USA (a)	184 686 000	212 281 000	196 814 000	202 529 000	227 703 000
India	* 270 000	* 270 000	* 280 000	* 300 000	* 270 000
Israel	18 200 000	23 200 000	* 33 000 000	* 35 000 000	* 45 000 000
Japan	11 300 000	* 12 000 000	* 12 000 000	* 12 000 000	* 11 800 000
World total	277 546 000	311 573 000	302 100 000	311 022 000	352 955 000

(a) Elemental bromine sold as such or used in the preparation of bromine compounds by primary producers

Bromine

Exports of Bromine

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom	1 769 662	1 583 779	2 535 619	1 834 619	1 705 486
Belgium-Luxembourg	24 400	1 200	—	138 000	411 900
Germany, Federal Republic of	269 400	202 900	193 900	112 100	13 200
Italy	—	—	18 300	14 900	—
Netherlands (b)	69 000	61 000	304 000	1 193 000	871 000
Algeria	160 660	—	—	...	...
USA	1 649 000	2 012 000	2 440 000	2 900 000	4 600 000
Japan (a)	5 116 061	5 517 020	5 484 493	6 020 166	5 524 215

Note: In general, trade in bromine compounds is not separately distinguished from other halogen salts and has therefore not been included in this table

(a) Includes fluorine and iodine

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

Imports of Bromine

Country	1975	1976	1977	1978	1979
United Kingdom	2 066 617	1 740 441	3 495 166	4 006 331	4 168 041
Belgium-Luxembourg	46 100	26 800	43 800	249 000	828 100
Denmark	163 000	96 200	84 000	121 900	...
France	673 000	997 000	1 970 000	2 762 000	2 542 000
Germany, Federal Republic of	1 805 300	3 109 900	2 204 600	1 871 000	2 922 100
Italy	1 117 800	1 678 303	2 036 000	1 974 600	3 008 400
Netherlands (c)	764 000	1 082 000	1 983 000	3 286 000	4 401 000
Greece	2 000	1 000	1 389	683	—
Hungary	...	250 400	574 500	587 000	1 036 000
Portugal	200	1 100	500	500	...
Spain	20 000	11 000	40 072	46 908	205 000
Turkey	359	249	928	84	...
Yugoslavia	6 030	2 286	15 276	11 812	10 001
Algeria	11 080	12	264	—	...
Morocco	277	175	70	40	6
South Africa	6 100	5 700	3 600	50 900	54 800
Zambia	37 996	—	158	...	...
USA	...	...	235 000	303 000	15 000
Argentina	83 571	127 794	49 314	...	...
Brazil	86 735	28 556	64 744	33 587	31 611
India (d)	4 368	303 983	505 598	192 770	...
Iran (a)(b)	2 693 908	255 160	...	...	...
Japan (b)	7 000	208 200	708 033	1 079 028	1 543 070
Korea, Republic of	824	11 741	104 736	...	...
Syria	170	3	97	9 500	...
Taiwan	255	156	794	5 708	18
Thailand	2	—	—	39	...

Note: In general, trade in bromine compounds is not separately distinguished from other halogen salts and has therefore not been included in this table

(a) Years ended 20 March following that stated

(b) Includes iodine

(c) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(d) Years ended 31 March following that stated

Cadmium

Production of Cadmium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	275	190	295	291	424
Belgium	972	1 175	1 434	1 139	1 440
France	602	586	790	694	689
Germany, Federal Republic of	1 018	1 275	1 336	1 182	1 266
Italy	411	436	449	378	541
Netherlands	272	398	302	402	416
Austria	30	29	26	33	34
Bulgaria	* 220	* 220	* 200	* 210	* 210
Finland	217	426	527	611	590
German Democratic Republic	* 18	* 18	* 18	* 18	* 15
Norway	47	80	97	120	115
Poland	* 370	* 700	* 754	* 761	* 773
Romania	* 90	* 100	* 90	* 90	* 90
Soviet Union	* 2 950	* 2 900	* 2 900	* 3 000	* 3 000
Spain	205	246	303	253	222
Yugoslavia	150	160	189	186	170
Namibia	118	118	88	79	81
Zaire	264	260	246	237	212
Zambia	6	7	4	—	—
Canada (a)	1 143	1 342	1 375	1 270	1 455
Mexico	586	710	908	897	732
USA (b)	1 989	2 047	1 999	1 653	1 715
Peru	160	174	182	* 190	220
China	* 110	* 110	* 110	* 120	* 120
India	53	34	44	113	166
Japan	2 657	2 500	2 844	2 531	2 598
Korea, Dem P.R. of	* 150	* 150	* 150	* 150	* 150
Australia	549	649	671	754	804
World total	15 700	17 000	18 300	17 400	18 200

(a) Refined cadmium from all sources including that obtained from imported lead and zinc concentrates; includes cadmium in sponge

(b) Includes cadmium sponge and secondary metal

Exports of Cadmium

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	165	105	109	155	73
Sulphide	10	32	17	11	1
Belgium-Luxembourg	917	836	945	736	810
France					
Metal	226	353	132	219	478
Sulphide	...	2	—	4	1
Germany, Federal Republic of					
Metal (a)	408	477	274	313	494
Oxide	18	28	30	18	22
Sulphide	22	37	45	24	28
Italy	102	424	140	124	259
Netherlands	341	474	380	373	528
Austria	0	15	8	20	25
Finland	189	450	472	507	707
Norway	61	93	81	97	156
Poland	277	...	...	...	...
Soviet Union	635	* 1 000	* 1 000	* 900	* 900
Spain	176	172	208	149	194
Yugoslavia	65	153	101	176	133
Zaire	210	208	186	...	...
Canada	643	1 556	870	1 259	1 293
Mexico	449	1 195	961	759	...
USA	183	229	107	328	212
Bolivia	156	141	150	93	8
Peru	150	199	171	...	...
Japan	1 471	1 841	784	111	151
Korea, Dem. P.R. of	* 62	...	...	...	...
Australia	519	524	557	744	625

(a) Including rhenium

Cadmium

Imports of Cadmium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	913	1 310	1 299	1 174	1 432
Belgium-Luxembourg	978	1 376	1 146	1 032	1 166
Denmark	5	9	11	11	...
France					
Metal	697	559	625	649	735
Sulphide	21	40	55	54	68
Germany, Federal Republic of					
Metal	631	1 136	988	994	1 165
Oxide	248	503	410	428	539
Italy					
Metal	143	259	148	179	85
Sulphide	20	28	19	35	15
Netherlands					
Metal	73	169	59	55	85
Sulphide	28	68	19	17	25
Austria	1	2	6	4	3
Sweden	264	403	270	132	168
Soviet Union	262	* 260	* 260	* 260	* 265
Turkey	19	18	19	9	...
Yugoslavia	4	1	7	—	...
USA					
Metal	2 375	3 095	2 332	2 881	2 572
Flue dust (a)	314	223	13	—	—
Brazil	74	153	154	55	248
India	5	0	6	66	...

(a) Cd content

Production of Chromium Ores and Concentrates

tonnes

Country	1975	1976	1977	1978	1979
Albania	* 779 000	* 830 000	* 880 000	* 1 000 000	* 1 100 000
Finland (a)(b)	164 593	174 869	168 871	178 000	* 190 000
Greece (b)	24 528	34 289	33 450	32 878	44 767
Soviet Union	* 2 080 000	* 2 100 000	* 2 180 000	* 2 300 000	* 2 400 000
Turkey	707 875	665 836	638 523	461 584	* 450 000
Yugoslavia	1 700	2 000	1 500	1 900	200
Madagascar (b)	194 127	211 426	164 789	119 283	128 347
South Africa	2 075 378	2 409 235	3 058 863	3 144 741	3 296 962
Sudan	36 578	23 749	22 300	23 680	* 23 000
Zimbabwe	875 668	863 868	677 322	477 765	541 742
Cuba	36 088	19 115	20 354	28 776	28 200
Brazil	172 643	192 563	305 178	269 000	300 000
Colombia (b)	—	5 000	5 000	5 000	* 5 000
Cyprus	27 623	9 156	14 230	15 339	15 743
India	500 294	402 111	352 535	266 293	309 142
Iran	155 456	* 160 000	* 233 000	* 198 000	* 136 000
Japan	23 149	21 772	18 144	9 000	* 9 000
Pakistan	10 544	10 836	* 9 000	* 12 000	* 9 000
Philippines	520 038	431 063	538 549	537 298	* 560 800
Vietnam	...	* 9 000	* 10 000	* 12 000	* 14 000
New Caledonia	1 050	9 051	8 310	8 229	12 407
World total	8 400 000	8 600 000	9 300 000	9 100 000	9 600 000

(a) Including foundry sand

(b) Concentrates

Chromium

Exports of Chromium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ore	2 771	965	26	38	222
Metal	1 517	2 106	2 088	2 249	2 121
Belgium-Luxembourg					
Ore	208	323	1 071	447	19
Metal	127	28	59	421	504
France					
Ore	368	396	982	983	1 379
Metal	269	712	455	611	720
Germany, Federal Republic of					
Ore	3 014	13 551	3 931	3 212	8 807
Metal	105	274	63	126	225
Italy					
Ore	3 811	2 962	2 013	3 606	2 673
Metal	17	14	8	90	19
Netherlands					
Ore (c)	27 289	23 675	19 548	15 150	14 417
Metal (c)	12	101	21	56	2
Albania					
Ore	* 670 000	* 690 000	* 720 000	* 800 000	...
Austria					
Ore	177	294	829	923	1 028
Finland					
Ore	150 421	291 483	508 305	364 461	308 847
Greece					
Ore	19 274	22 107	74 939	20 381	29 140
Soviet Union					
Ore	1 171 000	975 000	673 000	738 000	775 000
Turkey					
Ore	648 484	608 435	464 640	284 558	322 046
Yugoslavia					
Ore	3 280	303	3 523	5 854	10 475
Madagascar					
Ore	173 239	117 414	116 232	144 662	...
South Africa					
Ore	1 246 382	1 196 434	1 482 491	1 422 588	1 269 487
Sudan					
Ore	* 23 400	* 32 000	3 680	...	...
Cuba					
Ore	38 877	26 691	51 669	...	...
USA					
Ore	167 558	188 951	225 101	47 414	41 290
of which: Re-exports	41 122	76 795	55 437	26 564	25 802
Metal	638	539	531	529	164
Brazil					
Ore	190	9 128	71 111	81 859	45 215
Cyprus					
Ore	28 126	12 343	14 234	11 148	12 198
India					
Ore	359 380	277 798	167 057	59 116	...
Iran (a)					
Ore	77 078	5 400	...	...	...
Japan					
Ore	364	2 089	2 805	1 636	1 786
Pakistan (b)					
Ore	...	15 536	23 991	4 086	—
Philippines					
Ore	501 350	378 104	432 937	455 681	496 770
New Caledonia					
Ore	1 001	9 105	4 734	4 345	11 563

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

Imports of Chromium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ore	144 429	137 715	197 591	138 152	92 041
Metal	181	121	143	222	...
Belgium-Luxembourg					
Ore	3 714	2 776	3 891	2 309	1 903
Metal	232	145	226	875	538
France					
Ore	363 723	345 481	281 006	242 480	261 701
Metal	65	69	56	64	246
Germany, Federal Republic of					
Ore	561 035	547 293	415 593	371 738	546 786
Metal	391	435	400	698	883
Irish Republic					
Ore	9 240	7 758	6 445	5 579	6 222
Italy					
Ore	160 728	236 915	178 139	140 186	232 445
Metal	144	152	132	206	206
Netherlands					
Ore (a)	38 834	21 022	26 440	6 398	6 866
Metal (a)	190	76	75	81	59
Austria					
Ore	123 139	62 765	85 492	61 947	57 077
Czechoslovakia					
Ore	178 000	...	156 000	180 000	...
German Democratic Republic					
Ore (b)	58 300	48 600	43 000	51 700	...
Hungary					
Ore (c)	* 17 000	* 17 000	* 17 000	* 17 000	* 17 000
Norway					
Ore	84 501	68 862	28 146	5 372	36 357
Poland					
Ore	191 884	194 720	215 604	198 540	...
Portugal					
Ore	57	713	317	692	733
Spain					
Ore	98 260	117 392	112 657	95 165	117 977
Sweden					
Ore	395 735	377 465	385 113	557 522	673 537
Metal	179	351	139	215	215
Yugoslavia					
Ore	172 486	234 335	225 471	219 069	297 919
South Africa					
Ore	80 070	167 125	66 586	1 348	—
Canada					
Ore (b)	43 354	58 263	60 285	46 898	40 008
Mexico					
Ore	49 884	51 261	49 167	50 786	...
USA					
Ore	1 136 000	1 157 000	1 212 000	942 000	929 000
Metal	1 495	2 219	2 214	3 171	3 247
Argentina					
Ore	5 708	4 111	4 562	...	...
Brazil					
Ore	9 300	12 233	18 197	18 651	24 575
Venezuela					
Ore	5 000	12 500	0	5 600	...

Chromium

Imports of Chromium

tonnes

Country	1975	1976	1977	1978	1979
Japan Ore	1 268 875	1 217 404	899 934	669 987	962 251
Korea, Dem. P.R. of Ore	* 20 000	...	...	...	...
Taiwan Ore	3 467	4 579	7 706	3 327	6 653
Australia Ore	9 563	3 489	10 749	12 088	...

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Cr₂O₃ content

(c) Exports from Soviet Union

Production of Coal

Coal

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Mined –					
Anthracite	1 407 000	1 249 000	1 209 000	1 453 000	1 693 000
Bituminous	116 000 000	109 015 000	105 915 000	106 075 000	106 082 000
Opencast –					
Anthracite	1 127 000	1 114 000	1 320 000	1 499 000	1 337 000
Bituminous	9 286 000	10 830 000	12 230 000	12 668 000	11 525 000
Belgium					
Anthracite	1 506 993	1 125 716	795 741	627 500	510 530
Bituminous	5 971 710	6 112 022	6 272 300	5 962 768	5 613 973
France					
Anthracite & bituminous	22 424 000	21 879 000	21 294 000	19 690 000	18 611 000
Lignite	3 186 000	3 188 000	3 080 000	2 732 000	2 450 000
Germany, Federal Republic of (a)					
Anthracite & bituminous	92 393 000	89 269 000	84 840 000	83 936 000	86 319 000
Brown coal	123 377 000	134 493 000	122 920 000	123 559 000	130 579 000
Irish Republic					
Anthracite & semi-bituminous	47 470	49 090	53 810	30 400	62 000
Italy					
Bituminous	2 055	1 340	285	—	—
Brown coal	2 050 056	2 027 991	1 843 931	1 868 078	2 122 926
Albania					
Brown coal & lignite	* 900 000	* 950 000	* 1 000 000	* 1 050 000	...
Austria					
Brown coal (d)	3 397 404	3 214 598	3 127 473	3 075 680	2 740 742
Bulgaria					
Anthracite & bituminous	330 000	295 000	287 000	273 000	274 000
Brown coal & lignite	27 515 000	25 184 000	24 887 000	25 531 000	27 955 000
Czechoslovakia					
Bituminous	28 052 000	28 083 000	27 788 000	27 971 000	28 114 000
Brown coal	83 535 000	86 838 000	90 696 000	92 450 000	93 731 000
Lignite	3 551 000	3 488 000	3 354 000	3 269 000	3 201 000
German Democratic Republic					
Bituminous	539 000	457 000	349 000	85 000	—
Brown coal	246 706 000	246 897 000	253 705 000	235 264 000	...
Greece					
Lignite	18 123 037	22 303 238	23 893 197	21 888 000	23 617 433
Hungary					
Bituminous	3 020 000	2 934 000	2 925 212	2 953 902	3 002 567
Brown coal	14 963 000	14 779 000	14 433 014	14 301 627	14 181 758
Lignite	6 904 000	7 544 000	8 096 270	8 413 988	8 474 713
Norway					
Spitzbergen –					
Bituminous	422 342	524 729	436 784	402 084	259 280
Poland					
Bituminous	171 625 000	179 303 000	186 112 000	192 622 000	201 000 084
Brown coal	39 865 000	39 305 000	40 760 000	41 005 000	38 083 000
Portugal					
Anthracite	221 621	193 447	195 265	180 102	178 970
Romania					
Anthracite & bituminous	8 809 000	8 696 000	8 637 000	8 794 000	9 299 000
Lignite	19 916 000	18 819 000	19 872 000	22 019 000	22 400 000
Brown coal	660 000	600 000	635 000	641 000	633 000
Soviet Union					
Anthracite & bituminous	484 675 000	494 377 000	499 768 000	501 536 000	502 000 000
Lignite	160 216 000	160 031 000	163 513 000	162 871 000	...
Spain					
Anthracite	3 154 386	3 548 099	3 760 522	3 830 589	} 11 496 000
Bituminous	7 469 454	6 969 235	8 114 575	7 667 695	
Lignite	3 379 729	4 150 363	5 812 868	8 271 535	

Coal

Production of Coal

tonnes

Country	1975	1976	1977	1978	1979
Turkey					
Bituminous	8 365 301	8 080 756	7 676 743	7 744 125	7 169 000
Lignite	11 856 387	13 721 995	14 828 264	18 031 179	13 415 000
Yugoslavia					
Bituminous	598 000	547 000	512 000	471 000	434 000
Brown coal & lignite	34 810 000	36 258 000	38 571 000	39 213 000	41 680 000
Botswana	71 248	224 099	294 039	314 486	355 115
Morocco					
Anthracite	652 000	702 000	707 000	720 000	* 700 000
Mozambique					
Bituminous	574 843	* 372 000	* 450 000	* 500 000	...
Nigeria					
Sub-bituminous	284 494	* 280 000	237 510	* 250 000	172 147
South Africa					
Anthracite	1 590 713	2 459 429	2 558 960	2 150 038	3 308 727
Bituminous	67 848 885	74 600 187	82 851 583	88 207 790	100 459 139
Swaziland					
Bituminous	126 872	126 140	128 990	165 874	168 409
Tanzania					
Bituminous	850	824	2 096	* 1 000	...
Zaire					
Bituminous	96 463	112 219	127 955	96 771	99 220
Zambia					
Bituminous	898 090	772 513	708 077	615 145	598 508
Zimbabwe					
Bituminous	3 300 385	3 678 776	3 029 477	3 065 804	3 186 433
Canada					
Bituminous	15 751 913	14 388 822	15 301 000	17 141 000	19 157 000
Sub-bituminous	5 958 459	6 409 619	7 902 000	8 278 000	9 400 000
Lignite	3 548 585	4 677 597	5 478 000	5 058 000	5 038 000
Mexico					
Bituminous	5 193 448	5 649 628	6 610 223	6 755 556	6 950 000
USA					
Anthracite	5 627 549	5 650 159	5 317 088	5 847 000	5 625 000
Bituminous	570 274 000	592 442 000	601 601 000	544 733 000	} 691 905 000
Lignite	17 979 000	23 251 000	26 517 000	32 591 000	
Argentina					
Lignite	502 158	614 585	533 312	434 141	726 939
Brazil					
Bituminous & lignite	6 393 725	7 032 649	10 108 830	11 923 000	* 13 000 000
Chile					
Bituminous	1 393 139	1 222 536	1 270 867	1 089 842	915 002
Colombia					
Bituminous	3 800 000	4 000 000	4 204 100	4 930 000	* 5 000 000
Peru					
Anthracite	22 929	10 816	...	...	...
Venezuela					
Bituminous	* 60 000	89 000	114 000	100 000	...
Afghanistan (c)					
Bituminous	149 700	159 900	172 700	217 500	...
Burma (b)					
Bituminous	15 555	18 698	27 433	38 610	...
China	* 470 000 000	* 440 000 000	* 550 000 000	* 618 000 000	* 630 000 000
India					
Bituminous	95 911 000	101 876 000	110 247 000	101 973 000	108 845 000
Lignite	2 822 000	3 895 000	3 632 000	3 613 000	3 264 000
Indonesia					
Bituminous	206 388	192 910	230 627	264 180	* 256 000
Iran (c)					
Bituminous	879 900	* 900 000	* 900 000	* 900 000	...
Japan					
Anthracite & bituminous	18 999 000	18 396 029	18 246 245	18 991 274	} 17 644 000
Lignite	64 000	50 421	54 711	36 839	

Production of Coal

Coal

tonnes

Country	1975	1976	1977	1978	1979
Korea, Dem. P.R. of					
Bituminous	* 35 000 000	* 40 000 000	* 43 000 000	* 35 000 000	...
Lignite	* 9 000 000	* 10 000 000	* 11 000 000	* 11 500 000	...
Korea, Republic of					
Anthracite	17 585 000	16 428 000	17 233 000	18 056 000	18 131 000
Mongolia (e)	2 726 000	2 921 000	3 318 000	3 350 000	...
Pakistan					
Lignite	1 300 000	1 300 000	1 050 000	* 1 120 000	* 1 100 000
Philippines					
Bituminous	105 128	120 810	284 554	255 054	367 328
Taiwan					
Bituminous	3 140 578	3 235 810	2 955 915	2 883 904	2 719 751
Thailand					
Lignite	462 801	680 343	438 570	638 942	1 356 467
Vietnam					
Anthracite	* 5 300 000	* 5 500 000	* 6 000 000	* 5 000 000	...
Australia					
Bituminous	69 676 000	69 370 000	72 679 000	74 137 000	76 774 000
Sub-bituminous	5 008 000	5 483 000	5 529 000	5 743 000	6 367 000
Brown coal	28 178 000	30 940 000	29 250 000	32 869 000	32 597 000
New Zealand					
Bituminous	456 800	448 000	388 800	363 800	382 500
Sub-bituminous	1 819 000	1 867 000	1 816 000	1 667 800	1 354 800
Lignite	136 600	171 000	164 100	150 900	209 000
World total	3 253 000 000	3 271 000 000	3 470 000 000	3 484 000 000	3 654 000 000

(a) Including production of brown coal only from 'small mines'

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Includes some anthracite

(e) Including lignite

Coal

Exports of Coal

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Anthracite	1 490 013	1 033 725	738 967	532 683	846 216
Bituminous	691 849	400 672	1 201 678	1 730 615	1 493 160
Belgium-Luxembourg	562 258	391 034	366 762	271 157	504 176
France					
Anthracite	166 825	190 169	201 045	177 588	133 318
Bituminous	385 839	403 683	385 802	354 161	436 236
Lignite	14 999	19 007	12 775	6 370	6 852
Germany, Federal Republic of					
Brown coal	8 857	11 122	26 092	66 075	163 615
Other (b)	14 468 285	12 804 510	14 286 954	18 656 165	15 224 923
Irish Republic (b)	56 229	30 625	49 130	57 945	65 760
Italy (b)	4 252	5 246	15 086	5 544	12 920
Netherlands					
Anthracite	69 548	213 731	181 519	141 169	272 568
Other coal	218 576	247 178	276 175	345 296	760 745
Austria					
Brown coal	9 991	9 031	8 341	5 433	11 575
Czechoslovakia					
Brown coal	1 683 000	1 607 000	1 654 000	1 515 000	1 647 000
Other	3 666 000	3 770 000	3 308 000	3 745 000	3 366 000
Hungary	95 529	55 455	56 138	37 460	20 983
Norway	31 120	95 731	164 422	77 042	63 577
Poland					
Brown coal	3 442 000	3 084 000	3 387 000	3 332 000	2 974 000
Other	38 479 000	38 944 000	39 317 000	40 099 000	41 300 000
Soviet Union					
Anthracite	4 511 000	* 4 600 000	* 4 700 000	* 4 700 000	* 4 700 000
Other	21 440 000	* 22 300 000	* 22 500 000	* 22 500 000	* 23 000 000
Spain					
Anthracite	18 920	14 303	21 927	16 232	14 455
Sweden (b)	33 679	5 931	32 034	31 555	24 499
Switzerland	11 647	2	104	6	4 876
Turkey	200	500	700	520	1 000
Yugoslavia					
Brown coal	11 101	14 402	174 429	374 013	296 267
Lignite	327 970	240 761	42 946	23 762	77 211
Morocco					
Anthracite	19 322	30 030	10 380	54 928	77 622
Mozambique	266 143	204 843	156 138	...	...
Nigeria	31 024	10 416	20 000	18 000	...
South Africa					
Anthracite	1 121 834	1 530 151	2 223 833	2 528 160	3 363 925
Bituminous	1 565 469	4 430 991	10 478 234	12 860 508	19 977 383
Swaziland	67 212	109 819	76 913	105 342	165 170
Canada	11 694 657	11 772 151	12 069 202	13 657 443	13 852 775
USA					
Anthracite	580 236	558 070	566 907	785 875	1 118 332
Bituminous	59 573 586	53 891 778	32 096 879	36 129 749	58 770 047
Argentina	1 438	507	638	...	...
Colombia					
Anthracite	...	15 666	17 223	...	...
Bituminous	...	3 085	101 489	...	...

Exports of Coal

Country	1975	1976	1977	1978	1979
China (c)	* 455 800	* 322 000	* 490 800	* 772 200	* 1 400 000
India (a)					
Anthracite	...	...	201	...	...
Other	402 444	598 836	639 707	...	...
Japan	26 110	51 213	31 651	47 740	59 563
Korea, Dem. P.R. of	* 36 900	* 70 000	* 80 000	* 80 000	...
Korea, Republic of					
Anthracite	—	10 000	9 000	4 000	...
Australia	30 353 000	32 870 000	36 383 000	38 683 000	* 39 000 000

Note: This table excludes bunker shipments

(a) Years ended 31 March following that stated

(b) Including anthracite

(c) IGS estimates, based on imports into Japan

Coal

Imports of Coal

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Anthracite	135 247	141 979	269 027	217 423	251 281
Other	4 934 918	2 694 183	2 169 516	2 131 910	4 101 829
Belgium-Luxembourg	6 954 203	7 942 681	7 076 076	7 776 121	10 169 127
Denmark	4 131 845	4 177 022	5 565 900	6 110 214	...
France					
Anthracite	2 196 910	2 261 518	2 077 998	2 164 335	2 313 018
Bituminous	15 096 172	16 493 343	19 444 092	21 618 731	24 394 826
Lignite	10 100	11 836	11 929	11 024	11 774
Germany, Federal Republic of					
Brown coal	1 632 646	1 550 544	1 602 103	1 460 151	1 590 319
Other	6 244 033	5 970 316	6 353 152	5 722 144	7 772 937
Irish Republic					
Anthracite	26 807	27 102	37 727	56 479	48 705
Bituminous	663 003	579 326	829 943	783 550	1 167 219
Italy					
Anthracite	253 968	278 471	317 892	497 051	373 231
Bituminous	12 076 665	11 562 732	11 836 946	11 238 632	13 491 693
Lignite	34 710	38 342	41 891	26 572	42 028
Netherlands					
Anthracite	279 369	197 811	329 125	337 572	286 047
Brown coal	12 719	13 283	29 402	70 454	183 448
Other	3 864 853	4 712 344	5 565 102	4 693 083	5 924 741
Austria					
Anthracite	...	...	...	34 823	43 424
Brown coal	345 877	259 595	226 807	247 893	228 527
Other	2 545 996	2 606 960	2 331 643	2 257 001	2 750 492
Bulgaria	6 271 000	6 184 000	6 251 000	6 201 000	...
Czechoslovakia	5 188 000	5 209 000	5 619 000	5 591 000	5 492 000
Finland					
Anthracite	104 602	105 964	94 660	86 169	124 205
Other	3 740 400	2 676 005	4 192 568	4 703 069	4 647 005
German Democratic Republic	6 440 000	6 096 000	6 058 000	5 936 000	...
Greece					
Anthracite	4 085	5 810	6 303	52 142	6 000
Other	704 818	565 658	380 015	323 747	448 000
Greenland	2	3 857	...	2 652	...
Hungary (c)	1 438 000	1 297 000	1 524 288	1 420 029	1 514 663
Norway (a)					
Anthracite	102 107	88 878	85 329	79 535	92 940
Other	354 789	364 478	335 547	367 954	579 420
Poland					
Anthracite	36 000	50 000	41 000	30 000	...
Other	1 096 000	1 080 000	1 080 000	1 044 000	949 000
Portugal					
Anthracite	3 973	3 701	7 913	7 961	5 000
Other	367 529	404 155	397 325	425 322	365 146
Romania	2 419 500	2 622 900	3 439 900	4 668 500	3 844 800
Soviet Union	9 818 000	9 376 000	* 9 500 000	* 10 000 000	* 10 000 000
Spain					
Anthracite	17 835	35 523	10 429	7 479	5 310
Brown coal	15 547	19 695	12 327	6 391	7 086
Other	3 956 398	4 513 192	3 935 112	3 369 128	4 186 399
Sweden					
Anthracite	132 226	177 352	115 400	31 757	43 638
Other	1 499 293	1 840 325	1 284 208	1 512 949	2 075 556
Switzerland	123 486	114 024	143 047	141 499	317 049
Turkey	26 160	248 942	484 271	636 454	550 000
Yugoslavia					
Anthracite	181 362	130 492	185 493	209 565	200 496
Lignite	3 520	22 131	29 537	399	...
Other	1 965 012	2 491 297	2 418 747	1 463 914	3 335 365

Imports of Coal

Coal

tonnes

Country	1975	1976	1977	1978	1979
Algeria	36 493	13 074	41 164	30 530	...
Egypt	1 514 015	978 513	1 042 455	857 267	356 990
Ghana	10 160	11 000	10 000	12 000	...
Kenya	43 914	61 990	62 010	47 738	15 875
Madagascar	19 623	21 554	16 798	13 206	28 863
Malawi	71 556	62 471	56 529	55 307	...
Morocco	15 684	10 686	8 782	7 860	10 474
Mozambique	179 201	151 415	161 381	...	...
Nigeria	1 273	4 171	6 000	6 000	...
South Africa	130 194	302 894	295 663	198 593	175 878
Tunisia	52 919	23 229	20 098	27 085	...
Zaire	37 578	27 555	29 474	42 999	...
Canada					
Anthracite	292 010	213 381	293 171	225 638	159 081
Bituminous	14 814 732	14 281 066	14 882 447	12 900 419	17 280 373
Other	148 166	90 557	126 086	99 833	101 329
Cuba	57 089	41 607	41 910	...	...
Mexico	456 520	88 460	624 945	567 037	...
Panama	499	9	70	...	...
St Pierre & Miquelon	1 000	1 000	...	...	...
USA					
Bituminous	681 387	865 136	1 071 745	1 688 486	1 107 581
Other	185 969	243 358	583 129	1 472 684	784 084
Argentina	1 029 873	807 268	1 252 502	1 205 000	...
Brazil					
Anthracite	8 545	6 807	12 998	24 670	35 372
Bituminous	2 753 014	3 167 673	3 550 309	3 615 592	4 443 141
Chile	164 000	140 000	372 000	545 000	...
Uruguay	13 730	22 145	1 590	403	4 136
Venezuela	7 274	12 833	23 736	31 734	...
Burma	213 000	202 000	202 000	191 000	...
Hong Kong	10 087	12 972	11 114	7 711	5 814
India	2 485	35	2 805	1 583	...
Indonesia	13 437	9 342	32	2 515	4 082
Iran (b)	24	183	...	...	...
Israel (d)	222	156	195	305	...
Japan					
Anthracite	1 025 781	1 071 987	1 489 110	1 052 253	1 028 255
Lignite	14 524	12 219	42 899	38 168	42 322
Other	61 080 743	59 686 541	59 351 856	51 124 931	57 525 808
Korea, Dem. P.R. of	* 328 000	* 387 000	* 365 000	* 300 000	...
Korea, Republic of	671 492	1 493 951	2 006 813	* 2 000 000	...
Malaysia					
Anthracite	15 762	22 119	20 141	...	...
Philippines	570	5 041	25 589	51 540	1 510
Syria	1 223	1 699	1 130	1 059	...
Taiwan	77 315	213 532	757 812	1 369 200	2 720 141
Thailand	3 995	3 450	2 163	12 990	...
Australia	6 078	11 050	2 666	22 696	16 000
New Caledonia	102 422	73 983	124 598	44 105	...

(a) Excludes coal imported from Spitzbergen

(b) Years ended 20 March following that stated

(c) Including anthracite

(d) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Cobalt

Mine Production of Cobalt

tonnes (metal content)

Country	1975	1976	1977	1978	1979
Finland	1 170	1 207	1 227	1 236	1 070
Soviet Union	* 1 800	* 1 800	* 1 900	* 1 950	* 1 810
Botswana	81	150	165	261	* 270
Morocco	1 960	911	990	1 133	* 1 000
Zaire	31 300	34 300	32 600	* 33 000	* 35 000
Zambia	4 900	3 800	4 300	4 300	4 900
Canada (a)	1 354	1 356	1 485	1 234	1 381
Cuba	* 1 500	* 1 500	* 1 500	* 1 400	* 1 300
Philippines	106	492	1 084	1 192	1 240
Australia	2 709	3 250	3 324	3 393	* 3 400
New Caledonia	3 420	4 145	4 080	4 170	* 4 200
World total	50 300	52 900	52 700	53 300	55 600

Note: Other countries also believed to produce ores containing recoverable quantities of cobalt include Bulgaria, Cyprus, German Democratic Rep., Greece, Poland, Spain and Sweden

Production of Cobalt Metal

Country	1975	1976	1977	1978	1979
United Kingdom (a)	...	...	...	...	...
Belgium (b)	...	...	...	...	...
France	769	851	742	871	659
Germany, Federal Republic of	315	384	400	300	* 330
Czechoslovakia (c)	...	...	...	...	...
Finland	821	892	985	1 109	1 200
Norway	773	576	705	522	953
Soviet Union	* 1 800	* 1 800	* 1 900	* 1 950	* 1 810
Zaire	13 638	10 686	10 208	13 146	13 599
Zambia	1 860	2 175	1 704	2 063	3 176
Canada	254	298	459	519	* 550
USA	30	165	221	294	421
Japan	48	515	1 093	1 864	2 653
World total	20 900	18 900	19 000	23 200	26 000

(a) Details of production not known: it is believed that currently about 600 tonnes of cobalt in compounds is produced annually in the United Kingdom from imported materials

(b) Production not reported. Much of the metal recorded under Zaire is believed to be further processed in Belgium

(c) Czechoslovakia is thought to recover cobalt from materials imported from Cuba. However no data are available to enable a reliable estimate to be made

Cobalt

Exports of Cobalt

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	502	1 428	624	885	962
Oxides	148	634	316	411	244
Belgium-Luxembourg (a)					
Metal	* 2 100	* 3 800	* 4 500	* 4 000	* 3 300
Oxides	* 1 200	* 1 700	* 1 600	* 2 200	* 1 700
France					
Metal	461	943	1 066	1 100	797
Oxide	120	201	209	192	118
Germany, Federal Republic of					
Metal	221	322	340	796	847
Oxide	44	67	41	86	45
Italy	37	44	29	72	107
Netherlands	117	124	95	100	254
Finland					
Metal	810	811	999	853	1 069
Oxides	33	19	—	—	0
Norway	601	936	677	559	885
Sweden					
Metal	82	23	40	63	221
Oxides	0	—	2	0	85
Switzerland					
Oxides	2	7	7	11	2
Morocco					
Ore	13 144	8 550	9 076	8 922	7 530
Zaire	12 121	8 129	8 845	9 567	...
Zambia	1 344	2 312	* 2 000	* 2 000	* 3 000
Canada					
Metal	659	1 040	687	826	296
of which: Re-exports	228	516	3	110	—
Oxides	561	471	605	748	445
USA					
Metal	1 965	1 967	1 228	1 436	1 170
Oxides	105	161	639	816	1 357
Japan					
Oxides	12	11	10	87	41

(a) Exports of cobalt are not separately recorded. Figures shown are IGS estimates based on known imports into certain countries

Imports of Cobalt

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	2 168	2 262	2 124	2 266	3 032
Oxides	884	807	1 096	1 141	683
Denmark	16	23	21	33	...
France					
Ore	9 158	8 679	8 678	9 727	7 684
Metal	681	796	660	964	897
Oxide	170	198	169	293	267
Germany, Federal Republic of					
Metal	1 482	1 870	2 091	2 059	1 848
Oxide	153	346	320	603	483
Italy					
Metal	282	256	307	369	338
Oxide	260	256	223	215	189
Netherlands	76	84	17	78	194
Austria					
Oxides	1	3	5	6	2
Finland					
Metal	5	3	126	306	418
Oxides	19	53	52	15 252	...
Norway					
Metal	5	4	5	3	18
Oxides	10	19	10	9	9
Portugal					
Oxide	5	12	23	6	8
Spain					
Oxides	109	218	138	143	75
Sweden					
Metal	573	545	237	484	509
Oxides	3	4	5	3	4
Switzerland					
Oxides	4	7	7	16	2
Turkey					
Oxides	17	333	15	200	21
Yugoslavia					
Metal	41	83	71	...	...
Oxides	19	19	35	32	22
South Africa					
Metal	112	67	90	139	65
Oxides	16	12	2	6	8
USA					
Metal	2 763	6 862	7 635	7 479	8 567
Oxide	106	63	230	504	230
Argentina	84	84	78	...	...
Brazil					
Metal	147	289	237	312	237
Oxide	50	93	78	86	53
Hong Kong					
Oxide	36	56	49	41	18
India					
Metal	111	59	137	149	...
Oxide (a)	...	7	3	8	...
Indonesia					
Oxides	11	38	15	9	6
Iran (b)					
Oxides	28	79	...	...	...
Japan					
Metal	1 581	3 932	2 085	1 359	1 677
Oxide	252	754	597	615	651
Korea, Republic of					
Oxides	20	18	25	...	...
Taiwan					
Oxides	10	46	32	31	17
Australia					
Metal	30	28	20	36	18
Oxide	6	23	7	13	16

(a) Years ended 31 March following that stated

(b) Years ended 20 March following that stated

Copper

Mine Production of Copper

tonnes (metal content)

Country	1975	1976	1977	1978	1979
United Kingdom (b)	652	552	453	135	...
France	183	188	128	200	...
Germany, Federal Republic of	1 961	1 613	1 200	800	900
Irish Republic	9 839	4 097	4 829	4 700	5 000
Italy	800	1 000	700	531	489
Albania	9 000	10 000	10 000	11 500	12 500
Austria	1 923	1 138	—	—	—
Bulgaria	* 55 000	* 57 000	* 57 000	* 58 000	* 58 000
Czechoslovakia	10 700	8 500	9 300	8 200	8 000
Finland	38 000	41 700	46 746	46 818	41 100
German Democratic Republic	* 16 500	* 16 000	* 17 000	* 16 000	* 15 000
Greece	2 500	2 600	3 500	300	—
Hungary	400	262	304	203	116
Norway	26 647	31 080	29 053	29 073	28 016
Poland	230 000	267 000	289 300	318 000	345 000
Portugal	447	387	331	326	* 500
Romania	* 44 000	* 41 000	* 41 000	* 40 000	* 40 000
Soviet Union	* 1 100 000	* 1 130 000	* 1 100 000	* 1 140 000	* 1 150 000
Spain	30 020	34 867	34 750	33 948	...
Sweden	40 634	44 860	44 764	47 412	45 800
Turkey	27 300	29 323	34 979	27 474	37 959
Yugoslavia	114 894	120 130	116 218	123 319	96 000
Algeria	378	400	400	200	200
Botswana	6 504	12 473	11 783	14 614	14 563
Congo	918	408	1 015	608	* 1 000
Kenya	* 70	* 70	—	—	—
Mauritania	6 582	10 000	8 000	2 830	—
Morocco	4 600	4 400	3 370	4 300	7 300
Namibia	34 900	43 500	49 200	37 700	41 900
South Africa	178 927	196 880	205 414	205 745	190 591
Uganda	* 8 500	* 7 000	* 4 000	* 1 300	—
Zaire	464 928	443 948	452 716	472 533	451 548
Zambia	647 163	711 681	658 788	654 012	583 894
Zimbabwe	47 579	48 186	34 767	33 848	29 724
Canada (c)	733 826	730 930	759 423	659 380	643 754
Cuba	2 777	2 898	2 583	2 800	2 500
Guatemala	3 300	3 500	2 500	2 821	2 840
Honduras	* 200	364	489	* 1 000	...
Mexico	78 196	88 970	89 662	87 186	110 200
Nicaragua	600	800	300	100	—
USA (a)	1 282 184	1 456 564	1 364 375	1 357 587	1 441 295
Argentina	380	265	169	200	100
Bolivia	5 882	4 680	3 670	3 267	1 797
Brazil	1 922	54	25	59	—
Chile (a)	828 300	1 005 200	1 056 200	1 035 500	1 060 600
Colombia	—	260	310	400	* 900
Ecuador	239	267	765	507	* 1 200
Peru (a)	165 813	220 269	341 000	366 400	397 000
Burma	* 86	* 92	* 100	* 100	* 100
China	* 140 000	* 150 000	* 155 000	* 160 000	* 160 000
Cyprus	9 866	7 900	6 800	4 678	1 200
India	25 155	25 400	30 200	26 600	33 100
Indonesia	63 500	69 100	57 100	58 000	56 000
Iran	4 000	6 000	6 000	6 000	3 000
Israel	8 035	2 100	—	—	—
Japan	84 639	81 606	81 395	71 951	59 960
Korea, Dem. P.R. of	* 15 000	* 15 000	* 15 000	* 15 000	* 15 000
Korea, Republic of	2 330	2 097	1 688	669	433
Malaysia	3 800	18 200	24 000	26 000	24 514
Philippines	225 775	237 588	272 792	263 425	300 486
Taiwan	1 900	2 000	2 000	800	800

Mine Production of Copper

tonnes (metal content)

Country	1975	1976	1977	1978	1979
Australia	218 961	218 480	221 579	221 111	234 000
Papua New Guinea	172 477	176 519	182 291	198 603	170 788
World total	7 250 000	7 850 000	7 950 000	7 900 000	8 000 000

(a) Recoverable

(b) In a mixed copper-zinc concentrate

(c) Blister copper plus recoverable copper in ores and matte exported

Copper

Smelter Production of Copper

tonnes

Country	1975	1976	1977	1978	1979
Belgium	40 000	72 000	61 600	55 900	55 400
France (a)	39 600	39 328	45 045	41 345	45 258
Germany, Federal Republic of	224 600	244 500	248 000	221 500	250 700
Albania	8 500	10 000	9 000	9 500	10 500
Austria (a)	26 931	28 589	31 707	31 485	32 812
Bulgaria	* 60 000	* 57 000	* 57 000	* 58 000	* 57 000
Czechoslovakia	10 000	11 400	10 000	10 000	10 000
Finland	46 200	50 300	60 800	62 900	54 600
German Democratic Republic	* 16 500	* 22 500	* 18 000	* 17 000	* 19 000
Hungary	2 500	5 154	3 777	1 005	2 288
Norway	26 349	23 393	26 575	20 061	27 357
Poland	230 000	270 000	290 000	320 000	340 000
Portugal	2 800	2 800	3 400	3 000	3 400
Romania	42 684	40 491	41 429	38 880	41 120
Soviet Union	* 1 100 000	* 1 144 000	* 1 100 000	* 1 170 000	* 1 170 000
Spain	109 706	120 286	145 444	112 500	108 300
Sweden	56 221	62 867	61 720	67 044	64 500
Turkey	27 000	28 100	31 332	26 195	22 300
Yugoslavia	119 100	135 100	117 000	107 500	110 000
Namibia	36 400	36 100	53 400	45 900	42 700
South Africa	166 800	168 000	188 400	189 400	182 300
Uganda	8 300	7 000	4 000	1 300	—
Zaire	462 600	407 700	450 700	391 000	370 200
Zambia	659 000	705 900	658 500	653 900	595 100
Zimbabwe	30 000	23 500	28 000	34 200	30 900
Canada (b)	496 300	488 600	500 300	425 300	384 500
Mexico	76 374	85 175	87 457	86 978	82 800
USA	1 312 813	1 392 186	1 301 970	1 288 378	1 335 607
Chile	724 400	856 300	888 400	927 400	946 900
Peru	157 714	188 400	321 100	319 000	371 400
China	* 160 000	* 165 000	* 175 000	* 175 000	* 175 000
India	22 020	24 696	23 489	19 480	21 455
Japan	821 500	838 200	915 200	905 900	921 400
Korea, Dem. P.R. of	* 18 000	* 20 000	* 20 000	* 20 000	* 18 000
Korea, Republic of (a)	21 957	30 911	42 880	52 442	63 082
Taiwan	8 539	11 660	11 669	14 353	15 305
Australia	180 037	167 353	167 664	164 395	156 700
World total	7 600 000	8 000 000	8 200 000	8 100 000	8 100 000

(a) Refined

(b) Cu content of blister and anode copper

Exports of Copper

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	30	—	2 099	973	0
Unwrought –					
Matte & unrefined	746	1 866	—	4	81
Refined	15 730	12 291	6 880	11 110	22 569
Alloys	27 436	18 866	38 238	28 780	25 418
Scrap	35 285	39 056	29 483	40 431	59 593
Belgium-Luxembourg					
Ore	4 399	772	1 539	3 443	733
Unwrought –					
Unrefined (a)	1 204	1 428	884	2 128	2 945
Refined	248 610	307 507	320 965	304 783	297 601
Alloys	6 078	8 507	6 885	6 466	7 971
Scrap	7 851	12 898	16 573	19 912	26 846
Denmark					
Unwrought	2	—	151	15	...
Unwrought alloys	541	819	862	867	...
Scrap	7 841	8 849	11 120	12 499	...
France					
Ore	1 682	455	2 309	0	564
Matte (h)	397	551	1 390	504	1 181
Unwrought –					
Unrefined	2 183	4 439	5 076	3 665	5 790
Refined	4 427	6 488	7 388	17 248	17 322
Alloys	1 488	2 711	5 248	4 343	4 691
Scrap	55 713	100 508	96 091	98 204	104 933
Germany, Federal Republic of					
Ore	—	77	—	—	—
Matte (h)	1 182	212	338	300	96
Unwrought –					
Unrefined	38 463	38 913	32 364	29 589	22 384
Refined	49 790	53 700	66 954	112 695	86 686
Alloys	7 321	9 576	8 395	9 347	12 220
Scrap	28 493	39 565	46 340	53 956	54 820
Irish Republic					
Ores & concentrates	41 268	18 529	18 985	25 002	17 703
Italy					
Ore	2 961	2 817	1 588	2 631	1 232
Unwrought –					
Unrefined	2 747	2 560	2 131	877	72
Refined	1 290	1 520	790	751	424
Alloys	2 829	3 036	1 794	1 591	4 977
Scrap	3 249	12 144	10 929	9 088	15 722
Netherlands					
Unwrought	10 477	7 354	2 342	2 241	2 193
Unwrought alloys	4 194	3 400	2 916	2 312	3 079
Scrap	25 211	37 357	35 371	41 509	56 006
Austria					
Ore	2 236	1 246	550	91	116
Unwrought	9 821	12 155	12 192	17 238	18 774
Unwrought alloys	1 118	1 662	1 280	1 425	1 363
Scrap	622	704	1 304	2 474	3 242
Finland					
Unwrought	14 312	23 107	34 558	16 050	15 664
Unwrought alloys	149	526	2 749	1 492	1 228
Scrap	1 534	1 000	338	217	521
Norway					
Ore	83 270	105 715	98 728	98 239	98 797
Unwrought –					
Unrefined	6 969	5 865	6 841	5 586	6 192
Refined	17 917	14 793	19 558	14 614	20 051
Alloys	446	1 318	1 126	1 587	1 601
Scrap	1 362	2 303	2 673	4 221	4 569

Copper

Exports of Copper

tonnes

Country	1975	1976	1977	1978	1979
Poland					
Unwrought	90 329	96 062	117 919	146 688	134 000
Portugal					
Unwrought	22	—	—	815	3 882
Soviet Union					
Unwrought	209 859	* 227 000	* 227 000	* 247 000	* 247 000
Spain					
Ore	3	1 141	2 637	36	98
Matte	—	626	575	689	325
Unwrought	16 539	29 803	43 438	46 504	29 970
Unwrought alloys	699	4 626	3 944	5 890	5 868
Scrap	140	1 093	1 592	705	704
Sweden					
Ore	20 884	32 064	36 231	15 794	27 177
Unwrought	19 499	33 153	36 978	27 122	27 540
Unwrought alloys	2 703	3 116	3 787	2 748	3 683
Scrap	932	1 053	718	350	687
Switzerland					
Unwrought –					
Refined	151	540	826	557	4 024
Alloys	3 839	5 029	5 362	4 809	5 813
Scrap	6 854	7 266	6 633	4 972	12 119
Turkey					
Unwrought	5 540	—	—	—	...
Yugoslavia					
Unwrought	47 132	60 639	18 740	16 070	8 357
Algeria					
Ore	1 690	1 337	1 000	800	...
Scrap	1 688	2 781	4 489	1 501	...
Botswana					
Ores & concentrates (b)	4 500	12 300	12 500	15 600	10 800
Congo					
Ores & concentrates	3 274	670	261	...	...
Ivory Coast					
Matte & scrap	655	628	708	1 046	1 023
Mauritania					
Ore (b)	6 300	11 000	7 000	2 800	—
Morocco					
Ore	8 511	22 700	18 095	10 419	21 272
Scrap	352	1 548	905	1 462	1 902
Senegal					
Unwrought & scrap	442	...	667	...	...
South Africa (f)					
Ores & concentrates	* 62 000	* 78 000	* 70 000	* 50 000	* 72 000
Unwrought	* 144 400	* 151 600	* 209 100	* 220 100	* 170 200
Tunisia					
Unwrought & scrap (g)	162	720	853	359	...
Uganda					
Unwrought	7 884	5 452	2 201	...	...
Zaire					
Ores & concentrates	83 472	30 869	142 854	61 133	...
Unwrought –					
Blister (e)	240 300	315 489	357 090	301 290	266 164
Refined	224 000	73 981	90 643	103 645	70 041
Scrap	381	366	447	...	...
Zambia					
Unwrought –					
Blister	17 687	21 105	8 128	25 604	20 911
Refined	621 673	712 346	647 086	549 887	625 781

Exports of Copper

tonnes

Country	1975	1976	1977	1978	1979
Canada					
Ores, concentrates & matte (b)	314 518	303 055	279 583	282 162	318 347
Unwrought	319 958	317 455	294 285	247 754	191 140
Scrap	31 103	33 003	37 156	41 214	40 564
Mexico					
Concentrates	7 367	2 579	995	903	...
Unwrought –					
Unrefined	12 003	5 098	8 780	903	...
Refined	422	51	4 105	53	...
Nicaragua					
Ores & concentrates	3 310	...	...	...	...
USA					
Ores & concentrates (b)	7 345	7 138	21 934	17 486	44 565
Matte (b)	191	6 337	3 001	...	...
Unwrought –					
Unrefined	1 415	2 486	14 877	10 384	7 466
Refined	156 181	102 343	56 053	95 296	74 888
Master alloys	2 307	1 546	1 447	7 899	7 571
Scrap	130 900	103 712	109 054	156 065	171 736
Bolivia					
Ore (b)	5 991	4 681	3 174	2 990	1 740
Chile					
Ores & concentrates (b)	103 800	156 200	171 000	112 400	98 400
Unwrought –					
Blister	179 800	231 000	216 700	163 300	163 300
Refined	504 200	594 700	617 500	702 100	741 800
Peru					
Ore (b)	31 033	12 085	17 530	48 100	31 200
Unwrought	122 194	170 244	293 990	307 000	350 800
Cyprus					
Ores & concentrates	39 311	42 520	31 215	26 225	12 322
Hong Kong					
Scrap	5 287	8 157	9 167	11 219	14 482
Indonesia					
Ores & concentrates	175 247	216 828	182 292	186 601	168 634
Iran					
Ore (c)	8 700	4 200	...	...	...
Israel (i)					
Matte	173	239	428	148	...
Cement copper	9 595	4 180	266	—	...
Scrap	208	1 759	2 648	2 223	3 271
Japan					
Unwrought	21 974	29 333	48 044	55 383	52 469
Scrap	362	467	669	558	299
Malaysia					
Ore	13 278	81 354	98 859	...	...
Scrap	2 351	1 794	1 782	...	...
Philippines					
Ores & concentrates	816 333	956 558	1 007 365	895 299	1 049 124
Unwrought	68	8	36	—	—
Scrap	100	1 305	930	1 679	916
Singapore					
Unwrought	54	13	3	31	23
Scrap	4 471	7 193	7 531	9 896	15 543
Taiwan					
Ores & concentrates	792	264	—	—	—
Unwrought	440	787	537	448	236
Scrap	1 634	4 828	3 150	5 518	7 552

Copper

Exports of Copper

tonnes

Country	1975	1976	1977	1978	1979
Australia					
Ores, concentrates & matte (b)	51 540	51 962	44 926	41 418	49 155
Unwrought –					
Blister	12 308	9 935	9 075	4 144	28 756
Refined	91 508	76 240	74 689	60 065	46 978
Alloys	40	23	43	158	435
Scrap	575	393	475	348	348
New Zealand (d)					
Unwrought	161	92	132	212	...
Scrap	490	1 016	493	800	...
Papua New Guinea					
Ores & concentrates (b)	169 862	179 194	182 048	193 299	171 258

Note: In this table the description 'unwrought' copper corresponds to item 682.1 of The Standard International Trade Classification (Revision 2) and includes both blister and refined copper. Additionally the term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys

- (a) Figures up to 1977 include matte
- (b) Cu content
- (c) Years ended 20 March following that stated
- (d) Years ended 30 June of that stated
- (e) Including leach cathodes
- (f) IGS estimates, based on known imports into certain countries
- (g) Including matte
- (h) From 1977 includes cement copper
- (i) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

Imports of Copper

Country	1975	1976	1977	1978	1979
United Kingdom					
Ore & matte	307	1 491	1 112	1 935	563
Unwrought –					
Blister	81 734	50 989	58 583	50 847	60 472
Electrolytic	352 588	353 710	369 830	336 264	299 992
Other refined	16 998	29 378	14 604	16 999	16 644
Alloys	669	838	1 698	1 204	670
Scrap	9 618	11 898	12 362	9 667	10 546
Belgium-Luxembourg					
Ore (i)	46 651	24 053	21 283	5 485	1 774
Unwrought –					
Unrefined (a)	214 471	229 932	223 311	196 244	172 410
Refined	187 891	302 216	358 305	361 165	343 106
Alloys	2 765	5 573	3 465	2 741	2 993
Scrap	58 545	82 098	69 660	64 993	100 383
Denmark					
Unwrought	3 787	4 859	6 670	5 164	3 500
Unwrought alloys	672	990	1 032	805	...
Scrap	1 564	1 473	817	1 436	...
France					
Ore	6	31	1 008	1	4
Matte (j)	872	1 179	544	522	45
Unwrought –					
Unrefined	26 777	23 894	33 733	22 734	21 258
Refined	350 226	338 080	305 311	279 251	343 897
Alloys	4 965	5 442	4 305	4 229	4 139
Scrap	14 228	16 705	15 450	19 086	24 870
Germany, Federal Republic of					
Ore	564 352	615 285	576 307	531 355	483 740
Matte (j)	2 051	1 027	6 837	7 561	12 249
Unwrought –					
Unrefined	119 850	130 790	118 921	109 225	62 785
Refined	393 936	401 303	440 276	428 794	449 995
Alloys	40 320	49 566	49 303	47 951	55 111
Scrap	89 294	114 699	109 941	137 563	168 822
Irish Republic					
Unwrought	182	274	333	161	148
Italy					
Unwrought –					
Unrefined	2 379	4 853	5 778	4 654	6 802
Refined	281 848	292 496	298 205	351 646	338 464
Alloys	15 117	22 799	16 620	14 074	18 621
Scrap	55 940	69 061	72 354	69 579	76 309
Netherlands					
Unwrought	47 974	59 102	50 248	26 322	28 688
Unwrought alloys	1 555	1 494	2 060	1 699	2 382
Scrap	11 975	12 420	14 588	16 485	21 139
Austria					
Unwrought –					
Unrefined	8 268	9 706	12 949	15 948	7 887
Refined	15 869	10 348	8 066	4 406	3 664
Alloys	882	1 935	1 445	1 036	1 340
Scrap	11 904	12 938	12 116	15 602	23 208
Finland					
Ore	2 878	15 805	11 813	4 192	24 705
Unwrought –					
Refined	11 815	16 277	9 996	13 913	11 806
Alloys	2 827	394	512	420	587
Scrap	517	781	171	366	1 002
Greece					
Unwrought	23 968	23 648	22 233	21 544	24 014
Unwrought alloys	712	325	304	341	707
Scrap	306	15	200	193	255

Copper

Imports of Copper

tonnes

Country	1975	1976	1977	1978	1979
Hungary					
Unwrought (c)	44 528	30 248	37 639	32 888	25 995
Norway					
Unwrought	1 382	2 481	1 161	1 216	1 098
Unwrought alloys	1 668	964	588	1 863	1 551
Scrap	1 121	1 005	1 410	414	228
Poland					
Unwrought	1 139	1 512	1 023	589	...
Portugal					
Ore	50	696	805	6 249	706
Unwrought	10 085	10 141	17 352	14 510	11 944
Scrap	502	732	2 666	2 981	261
Soviet Union					
Ore (l)	* 25 500	* 59 200	* 67 100	* 66 600	* 46 700
Unwrought	8 532	* 8 000	* 8 000	* 8 000	* 8 000
Spain					
Ore	115 388	174 126	188 928	222 248	191 109
Matte & cement	24 505	26 039	28 481	11 785	11 304
Unwrought –					
Unrefined	2 932	4 052	4 121	2 704	1 193
Refined	54 753	44 742	53 852	37 527	51 656
Alloys	169	49	101	126	243
Scrap	16 138	9 044	6 746	11 466	18 951
Sweden					
Ore	56 387	57 946	44 738	34 323	33 153
Matte (j)	6 685	8 643	2 564	11 616	10 371
Unwrought	68 531	65 668	49 151	70 923	71 476
Unwrought alloys	6 483	3 866	2 641	3 797	3 689
Scrap	8 484	3 189	2 817	4 074	6 184
Switzerland					
Unwrought –					
Refined	33 890	21 303	24 899	21 852	11 037
Alloys	1 238	1 629	1 799	1 359	1 063
Scrap	4 170	1 945	4 255	4 952	3 395
Turkey					
Ore	2	—	25 364	—	...
Unwrought	1 275	5 154	3 893	1 894	2 282
Scrap	498	240	1 890	269	622
Yugoslavia					
Concentrates	9 991	30 701	20 137	23 994	7 739
Unwrought	33 042	27 087	25 747	36 478	29 051
Unwrought alloys	4 507	4 725	1 438	3 583	7 044
Algeria					
Unwrought	84	2 192	3 830	4 325	...
Egypt					
Unwrought & scrap (k)	3 499	559	2 002	2 790	1 163
South Africa					
Ore & concentrates	11 076	8 827	199	—	—
Unwrought	4 221	3 821	3 535	967	2 008
Unwrought alloys	23	32	104	111	101
Scrap	369	709	197	210	55
Canada					
Ores, concentrates, scrap (d)	16 519	13 930	16 487	18 398	2 640
Unwrought	10 908	9 122	18 821	21 439	32 541
Unwrought alloys	5 937	6 663	8 069	9 940	9 816
Scrap	3 728	4 743	3 765	7 586	8 916
Mexico					
Unwrought	58	30	49	2 162	...

Imports of Copper

Country	1975	1976	1977	1978	1979
USA					
Ores & concentrates (d)	58 856	64 126	38 177	20 916	22 433
Matte (d)	8 248	16 586	16 175	10 724	415
Unwrought –					
Unrefined (d)	80 695	40 355	41 898	78 683	68 135
Refined	132 416	346 112	354 506	414 697	215 161
Alloys	1 139	3 833	4 097	7 251	3 959
Scrap	18 352	26 654	25 953	28 619	29 615
Argentina					
Unwrought, refined	38 932	28 526	36 675	...	...
Brazil					
Unwrought, refined	127 664	150 552	182 299	156 989	190 175
Colombia					
Unwrought & scrap	...	1 192	1 937	...	...
Uruguay					
Unwrought	22	1	61	46	270
China					
Refined (b)	36 900	32 100	37 300	52 700	53 200
Hong Kong					
Unwrought	146	163	156	106	145
Scrap	2 365	2 079	2 988	1 644	2 198
India					
Unwrought (e)	11 318	29 703	32 609	69 695	...
Scrap	1 139	7 113	16 305	15 754	...
Indonesia					
Unwrought	971	462	348	292	5 062
Iran (f)					
Unwrought	1 118	873	...	...	...
Scrap	2 691	2 499	...	...	...
Israel (h)					
Unwrought	...	...	...	206	...
Scrap	...	...	47	14	...
Japan					
Ores & concentrates	2 605 399	2 587 392	2 823 007	2 817 967	2 969 026
Matte	—	—	—	141	1 580
Unwrought	207 990	232 344	273 395	333 073	395 054
Unwrought alloys	4 261	678	45	50	102
Scrap	38 953	33 798	40 991	55 049	49 356
Korea, Republic of					
Ore	29 030	67 859	90 804	...	...
Unwrought	6 900	10 501	21 520	...	...
Scrap	24 643	28 988	33 132	...	...
Malaysia					
Unwrought	58	34	71	...	...
Pakistan (g)					
Scrap	...	1 628	1 416	3 292	835
Philippines					
Unwrought	3 404	6 167	6 442	6 462	5 335
Singapore					
Unwrought	399	353	319	165	241
Scrap	1 497	1 368	1 341	1 561	3 060
Syria					
Unwrought (k)	1 257	1 412	849	661	...
Taiwan					
Ores & concentrates	10 000	8 025	55 118	20 654	61 106
Matte & cement	1 513	7	921	4 968	962
Unwrought	19 555	24 443	36 940	33 928	56 021
Scrap	5 662	5 705	10 426	14 083	16 329
Thailand					
Unwrought	2 746	2 852	4 363	5 483	...
Scrap	631	393	1 447	672	...

Copper

Imports of Copper

tonnes

Country	1975	1976	1977	1978	1979
Australia					
Unwrought	4	8	33	10	228
Unwrought alloys	52	66	458	120	283
Scrap	1 169	957	796	869	1 109
New Zealand (g)					
Unwrought	1 077	1 141	2 245	1 038	2 452

Note: In this table the description 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 2) and includes both blister and refined copper. Additionally the term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys

- (a) Figures up to 1977 include matte
- (b) Imports from western countries only
- (c) Including semi-manufactures
- (d) Cu content
- (e) Years ended 31 March following that stated
- (f) Years ended 20 March following that stated
- (g) Years ended 30 June of that stated
- (h) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
- (i) Partial figures. Imports from certain countries are confidential
- (j) From 1977 includes cement copper
- (k) Including matte
- (l) IGS estimates, based on known exports from certain countries

Production of Diamond

Country	1975	1976	1977	1978	1979
Soviet Union	* 9 700 000	* 9 900 000	* 10 300 000	* 10 550 000	* 10 700 000
Angola	991 000	340 000	353 000	700 000	* 750 000
Botswana	2 413 839	2 384 000	2 691 000	2 799 000	4 369 000
Central African Republic	338 894	286 007	296 908	284 246	314 067
Ghana (a)	2 328 278	2 283 000	1 947 000	1 423 000	1 500 000
Guinea	* 80 000	* 80 000	* 80 000	* 80 000	* 85 000
Ivory Coast	209 023	60 000	17 800	10 000	* 5 000
Lesotho (b)	3 466	7 051	22 688	48 977	52 421
Namibia	1 747 739	1 693 994	2 001 217	1 898 211	1 652 536
Sierra Leone	1 377 191	999 441	746 290	797 043	855 164
South Africa	7 295 133	7 022 770	7 643 291	7 726 605	8 384 332
Tanzania	447 800	431 601	507 294	* 293 000	* 290 000
Zaire	12 810 319	11 821 000	11 932 000	10 599 000	8 625 000
Brazil	261 641	76 045	65 766	70 855	90 000
Guyana	20 762	13 897	16 679	17 226	15 824
Venezuela	1 060 000	849 000	687 000	738 000	750 000
India	19 994	20 487	18 297	15 942	14 956
Indonesia	* 15 000	* 15 000	* 15 000	* 15 000	* 15 000
World total (c)	41 100 000	38 300 000	39 300 000	38 100 000	38 500 000

Note: This table does not show production of synthetic diamond

(a) Includes diamonds produced by companies and private diggers

(b) Figures up to 1976 are exports

(c) Does not include an estimate for China

Diamond

Exports of Diamond

carats

Country	1975	1976	1977	1978	1979
United Kingdom					
Industrial	8 117 468	4 221 088	20 588 095	12 840 110	11 229 202
Other	56 214 326	72 127 733	66 731 636	70 306 670	61 199 105
Belgium-Luxembourg					
Rough	8 458 788	15 330 053	22 333 014	24 577 800	22 807 126
Cut	2 255 639	2 627 110	3 143 400	3 076 942	2 875 324
Industrial	5 897 850	8 817 103	9 106 907	8 650 019	9 150 601
France					
Rough	290	7 825	40 628	29 758	2 406
Cut	60 565	34 075	92 190	35 874	34 760
Industrial	946 365	423 890	43 978	148 426	191 048
Dust	303 220	176 810	187 265	255 560	129 130
Germany, Federal Republic of					
Industrial	122 530	190 715	220 132	355 445	295 777
Other	129 090	158 595	142 898	149 643	113 376
Netherlands					
Industrial	1 386 012	4 540 473	4 185 224	1 071 953	845 467
Other	364 535	1 719 919	2 901 996	1 933 848	438 962
Portugal					
Industrial	397 679	70 455	68 081	—	...
Other	1 035 946	290 253	189 631	57 568	...
Sweden					
Gem	£291 805	£330 470	£651 820	£1 088 300	£1 585 950
Industrial	£52 680	£36 860	£21 730	£94 500	£17 900
Central African Republic	331 672	277 837	282 252	...	...
Congo	£742 000	£740 000	...	...	...
Ghana					
Industrial	2 371 592	...	...	...	...
Ivory Coast	255 000	95 000	50 000	—	2 005 000
Lesotho	3 000	5 000	14 977	67 722	...
Liberia	420 014	320 298	326 214	307 377	...
Sierra Leone	1 466 645	919 871	521 402	280 795	...
South Africa					
Rough	£149 656 000	£236 172 000	£434 501 000	£414 337 000	£492 385 000
Cut	£55 570 000	£58 425 000	£102 099 000	£156 020 000	£175 344 000
Industrial	£31 997 000	£24 967 000	£29 185 000	£14 309 000	£14 572 000
Tanzania	595 045	445 625	407 533	293 310	322 925
Togo	£56 400	...	...	...	...
Zaire					
Gem	5 156 891	2 810 000	2 558 200	...	...
Industrial	729 147	188 556	114 375	...	...
Canada					
Cut	26 976	38 333	41 843	36 805	34 571
of which: Re-exports	26 733	38 333	41 843	36 740	32 555
Industrial	370 936	251 198	203 183	140 541	174 752
of which: Re-exports	321 940	229 682	198 481	137 229	168 344
Dust	79 118	47 336	46 892	36 459	20 513
USA					
Rough	1 055 169	1 025 923	1 119 829	1 291 864	922 298
of which: Re-exports	1 049 903	1 025 183	1 113 988	1 179 038	913 981
Cut	388 186	485 735	436 800	307 333	273 210
of which: Re-exports	128 579	173 622	126 481	87 960	68 046
Industrial	3 374 784	3 076 661	3 508 044	2 955 584	2 737 433
of which: Re-exports	2 425 083	2 437 573	3 131 930	2 666 434	2 054 707
Bort	373 647	432 808	325 239	...	...
of which: Re-exports	370 619	355 816	319 525	...	...
Dust (b)	13 237 107	14 457 139	17 736 072	19 480 573	27 769 094
of which: Re-exports	434 898	301 677	464 083	624 028	472 309
Brazil	14 445	7 615	4 970	34 810	7 840
of which: Re-exports	—	6 015	3 895	6 825	7 085
Guyana	16 920	11 844	9 625	10 999	...

Exports of Diamond

Country	1975	1976	1977	1978	1979
Hong Kong	334 789	443 349	354 560	366 654	383 359
of which: Re-exports	327 705	440 808	348 852	359 595	372 714
India					
Gem	£47 359 000	£121 610 000	£246 080 000	£346 269 000	...
Israel (a)					
Cut	3 118 000	3 637 000	3 637 000	2 884 000	2 452 400
Japan					
Cut	3 200	1 664	798	232	1 031
Industrial	3 675	479	1 283	1 185	1 286
Malaysia					
Rough	—	£51 700	£80 500	...	...
Cut	£38 500	£1 900	£10 700	...	...
Singapore					
Rough	£73 800	£332 800	£1 400	£1 300	£80 500
Cut	£3 625 400	£888 500	£1 196 200	£2 003 700	£2 899 500
Industrial	...	£39 800	£19 700	£6 300	£21 800
Thailand	238	146	367	8 199	...
Australia					
Industrial	178 169	187 416	357 624	200 593	247 861

Note: Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling. (See explanatory notes at the front of the volume)

(a) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

(b) May include synthetic material

Diamond

Imports of Diamond

carats

Country	1975	1976	1977	1978	1979
United Kingdom	£876 924 539	£1 124 873 744	£1 814 585 000	£2 403 269 635	£2 705 513 536
Belgium-Luxembourg					
Rough	12 535 215	19 753 106	29 198 889	26 294 445	24 910 619
Cut	1 279 131	1 692 393	2 388 354	2 524 643	2 225 218
Industrial	7 778 513	9 392 852	9 493 268	10 183 231	11 309 001
France					
Rough	27 915	30 820	30 145	24 256	22 884
Cut	265 825	313 150	1 797 506	541 062	433 302
Industrial	851 845	781 350	1 030 531	675 580	496 826
Dust	2 809 295	2 878 715	3 658 165	3 470 425	3 976 970
Germany, Federal Republic of					
Industrial	891 525	774 880	933 158	1 175 419	1 056 672
Other	575 930	728 425	781 172	725 575	519 713
Italy					
Industrial	...	105 000	136 771	180 324	184 340
Other	...	735 000	182 486	98 086	155 619
Netherlands					
Industrial	1 699 972	10 054 317	4 141 476	1 245 078	877 485
Other	382 094	4 601 628	10 485 734	3 839 227	762 925
Finland					
Industrial	24 500	79 500	10 750	11 650	10 000
Other	—	1 000	8 250	21 050	70 000
Malta					
Rough	£130 300	£540 600	£965 700	£1 545 500	£3 166 000
Cut	£18 700	£17 100	£12 700	£22 100	£4 000
Norway					
Industrial	55 000	10 000	10 000	10 000	25 000
Other	25 000	80 000	110 000	45 000	65 000
Portugal	1 097 118	363 618	968 853	90 452	...
Sweden					
Gem	£5 500 165	£7 082 820	£9 591 630	£10 310 500	£6 758 500
Industrial	£740 460	£487 820	£607 980	£606 800	£643 500
Yugoslavia					
Industrial	66 700	537 105	736 645	35 000	150 000
Other	...	15 000	80 000	100 000	120 000
Dust	71 220	344 345	408 330	130 000	150 000
Algeria					
Industrial	2 380 000	5 030 000	525 000	675 000	...
Madagascar	160 000	...	105 000	...	...
South Africa					
Rough	74 000	27 000	75 000	28 000	70 000
Cut	9 000	13 000	67 500	45 000	39 500
Industrial	9 043 500	6 708 500	2 851 000	763 000	1 693 500
Tanzania					
Cut	124 355	213 660	91 050	...	...
Zambia					
Industrial	53 870 000	80 300 000	20 960 000	...	...
Canada					
Cut	157 978	191 538	208 971	165 170	137 456
Industrial	1 032 396	885 361	829 589	1 023 583	1 332 418
Mexico					
Cut	42 015	37 885	} 1 340 000	335 000	...
Industrial	170 000	6 715 000			
USA					
Rough	2 341 415	2 464 053	2 909 360	2 478 830	2 119 523
Cut	2 266 265	3 111 993	3 526 802	3 209 183	2 352 646
Industrial	5 220 124	5 291 337	7 145 344	6 922 093	1 091 766
Bort	283 269	186 264	260 456	177 082	58 255
Dust (a)	5 579 412	6 741 430	8 332 736	7 437 398	5 265 420

Imports of Diamond

carats

Country	1975	1976	1977	1978	1979
Argentina					
Industrial	...	145 000	650 000	...	...
Dust	150 000	189 705	368 205	...	...
Brazil					
Rough	41 515	6 390	2 590	3 695	1 465
Cut	16 185	4 940	3 300	7 400	10 575
Industrial	408 740	433 155	412 440	418 640	248 395
Dust	1 172 375	1 823 185	1 647 960	2 134 450	2 317 695
Costa Rica					
Industrial	15 000	135 000	40 000	...	...
Abu Dhabi	495 000	65 000	1 220 000	10 000	5 000
China					
Gem (e)	* 43 807	* 13 019	—	* 12 321	* 17 559
Industrial (d)	* 119 900	* 34 800	—	* 99 100	* 99 300
Dubai	—	5 000	13 915 000	39 495 000	7 400 000
Hong Kong					
Gem	1 005 204	1 227 553	1 291 573	1 296 252	1 002 710
Industrial	£28 000	£70 000	£45 000	£149 000	£388 000
India					
Gem	£38 426 000	£90 739 000	£188 540 000	£278 263 000	...
Industrial & bort	795 000	480 000	775 000	3 330 000	...
Indonesia					
Industrial	27 240	750 000	—	55 000	1 790 000
Iraq					
Cut	50 000	60 000	...	...	...
Israel					
Rough (c)	6 894 000	10 003 000	12 256 000	8 490 000	...
Cut (c)	63 000	107 000	142 000	148 000	...
Industrial (c)	1 745 000	2 250 000	2 885 000	3 044 000	...
Japan					
Rough	23 875	32 977	41 863	27 423	38 598
Cut	619 845	683 028	690 704	742 070	683 836
Industrial	421 255	636 198	735 799	697 283	622 873
Korea, Republic of					
Industrial	50 000	136 025	40 330	...	...
Malaysia					
Rough	£60 500	£596 800	£874 100	...	...
Cut	£496 200	£331 900	£187 000	...	...
Industrial	£2 600	£19 700	£14 200	...	...
Philippines					
Industrial	82 020	54 905	73 300	76 733	84 110
Singapore					
Rough	£268 100	£48 500	£1 400	—	£310 100
Cut	£6 871 200	£6 895 000	£5 279 300	£11 422 100	£16 678 500
Industrial	£5 300	£184 900	£105 300	£146 900	£949 600
Thailand					
Industrial	26 901	18 990	29 040	69 767	...
Other	3 068	31	744 985	18 232	...
Australia					
Gem	94 307	93 800	79 415	75 093	68 402
Industrial	698 403	850 177	971 689	892 006	1 139 174
New Zealand (b)					
Industrial	£37 000	£51 500	£77 100	£46 300	£70 900
Other	£776 600	£831 600	£825 600	£1 884 800	£1 436 200

Note: Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling. (See explanatory notes at the front of the volume)

(a) May include synthetic material

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(d) IGS estimates, based on known exports from certain countries

(e) Exports from the United Kingdom

Diatomite

Production of Diatomite

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	* 6 000	* 2 000	* 2 000	* 2 000	* 2 000
Denmark (a)					
Diatomite	4 409	5 196	6 858	5 980	6 158
Moler (e)	93 000	93 000	96 000	102 000	* 110 300
France (b)	188 075	210 255	205 534	217 407	* 245 600
Germany, Federal Republic of	53 035	21 190	17 762	14 326	18 390
Italy	29 970	* 32 000	* 30 000	* 30 000	* 30 000
Austria	1 570	1 882	242	536	—
Iceland	21 318	21 668	20 170	20 955	22 247
Portugal	2 090	3 150	3 390	2 500	3 400
Romania	* 40 000	* 40 000	* 40 000	* 40 000	* 40 000
Soviet Union	* 270 000	* 270 000	* 270 000	* 270 000	* 270 000
Spain (b)	20 370	18 931	28 281	21 370	* 28 000
Sweden	423	327	—	—	—
Yugoslavia	18 625	8 245	5 741	...	...
Algeria	4 900	4 321	4 075	4 437	* 4 400
Egypt	1 600	327	373	99	* 90
Kenya	1 799	2 668	2 441	1 723	1 266
South Africa	649	619	666	930	1 059
Canada	* 500	* 500	* 500	* 500	* 500
Costa Rica	* 1 000	717	680	610	635
Mexico	22 723	26 294	23 574	22 452	* 23 000
USA (c)	519 438	572 778	587 895	591 000	650 000
Argentina	15 905	13 850	12 337	10 821	10 300
Brazil	2 202	4 179	4 966	10 709	* 12 500
Chile	186	330	480	5 000	5 000
Colombia	600	650	630	630	630
Peru	17 239	* 18 000	18 800	16 500	16 300
Korea, Republic of	19 285	13 483	22 980	18 845	23 915
Thailand	—	—	190	1 105	* 1 100
Australia	5 543	1 480	1 288	416	454
New Zealand	3 055	1 425	1 113	—	—
World total (d)	1 400 000	1 400 000	1 400 000	1 400 000	1 500 000

(a) Sales

(b) Including tripoli

(c) Sold or used by producers

(d) Excluding diatomite known to have been produced in Hungary, Norway, and Japan

(e) Moler is an impure diatomite containing a large proportion of clay

Exports of Diatomite

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 390	2 220	1 069	853	1 098
Belgium-Luxembourg	8 162	6 829	4 103	3 567	1 350
Denmark					
Diatomite	4 408	6 451	7 957	6 111	...
Moler	56 203	57 428	54 900	46 569	...
Moler bricks	25 849	24 937	28 872	27 255	...
France	18 186	17 577	19 363	24 982	28 876
Germany, Federal Republic of	4 883	4 805	3 909	3 999	4 153
Italy	1 441	1 174	991	1 193	1 866
Netherlands	222	207	294	520	559
Austria	729	681	1 058	1 027	1 031
Finland	10	34	8	8	9
Iceland	20 264	22 699	20 985	20 020	21 288
Norway	16	83	75	45	34
Portugal	21	1 018	1 189	1 213	10
Spain	1 239	2 919	2 286	1 658	1 453
Sweden	124	195	107	160	142
Yugoslavia	12	...	—	—	1
Algeria	4 146	850	795	2 445	...
Kenya	...	185	879	361	227
Costa Rica	780	1 280	1 028	...	...
Mexico	3 305	3 606	3 005	2 762	...
USA	133 211	135 360	138 269	138 865	153 927
Japan	908	1 151	1 024	1 298	1 277
Korea, Republic of	70	300	50	...	...
Taiwan	31	236	100	123	50

Diatomite

Imports of Diatomite

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	12 034	12 221	9 918	9 090	11 902
Belgium-Luxembourg	7 403	6 341	7 747	9 607	11 349
Denmark	3 869	4 059	4 607	4 212	...
France	7 688	6 861	5 254	8 878	11 327
Germany, Federal Republic of	57 842	54 507	46 813	39 100	40 190
Irish Republic	...	...	722	946	1 217
Italy	2 973	3 273	3 728	5 391	5 912
Netherlands	15 482	15 964	15 769	16 241	17 460
Austria	5 675	6 474	9 570	7 206	7 856
Finland	1 114	1 077	1 281	1 295	1 901
Greece	527	381	404	589	677
Iceland	0	1	3	34	44
Norway	1 292	1 480	2 368	1 960	1 968
Poland	3 276	...	...	...	...
Portugal	2 772	3 032	3 786	3 534	4 003
Spain	2 815	2 434	2 689	3 061	2 875
Sweden	4 147	4 063	3 883	4 097	5 544
Switzerland	3 231	4 539	6 207	8 098	9 102
Turkey	231	818	362	204	84
Yugoslavia	109	77	87	152	285
Cameroon	368	464	388	605	...
Canary Islands	20	69	93	66	123
Ivory Coast	257	375	310	384	238
Morocco	197	426	297	405	176
South Africa	8 745	4 922	4 735	7 728	5 902
Togo	23 128	...	...	...	...
Tunisia	137	150	385	137	...
Zaire	977	940	905	570	...
Zambia	440	472	1 022	...	...
Canada	30 270	35 765	27 180	25 371	28 348
Costa Rica	300	440	204	...	...
El Salvador	1 295	2 335	1 500	...	...
Guatemala	490	519	416	...	...
Honduras	626	888	409	260	...
Mexico	338	270	1 672	4	...
Nicaragua	750	239	...	...	344
USA	3 477	4 676	591	181	479
Argentina	2 351	3 027	3 772	...	...
Brazil	1 913	1 554	2 127	1 365	1 633
Uruguay	154	116	154	108	125
Venezuela	3 978	4 193	5 112	4 857	...
Cyprus	90	83	46	137	...
Hong Kong	142	199	286	264	242
India (d)	1 121	1 127	826	247	...
Indonesia	463	375	525	508	2 388
Iran (c)	978	1 481	...	...	...
Israel (b)	...	86	176	89	...
Japan	4 105	2 656	5 046	5 871	5 962
Malaysia	24	177	385	...	...

Imports of Diatomite

tonnes

Country	1975	1976	1977	1978	1979
Philippines	1 306	2 485	2 255	1 715	1 451
Saudi Arabia	22 418	3 773	2 490	...	...
Singapore	604	232	339	320	657
Taiwan	1 022	1 372	1 428	2 284	3 076
Thailand	5	21	18	37	...
Australia	8 468	9 059	9 587	13 707	7 532
Fiji	135	55	136	...	...
New Zealand (a)	1 210	558	793	555	700

(a) Years ended 30 June of that stated

(b) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(c) Years ended 20 March following that stated

(d) Years ended 31 March following that stated

Feldspar

Production of Feldspar

tonnes

Country	1975	1976	1977	1978	1979 ¹
France (c)	192 001	201 855	192 000	211 000	195 000
Germany, Federal Republic of (b)	395 883	419 976	393 793	385 590	372 754
Italy	185 209	182 605	213 593	251 083	294 648
Austria	—	3 800	3 645	2 886	6 594
Finland	68 577	68 213	71 890	71 330	* 67 900
Norway (d)	44 957	37 690	70 799	59 522	* 70 800
Poland	* 30 000	* 30 000	* 40 000	* 40 000	* 40 000
Portugal	16 374	10 051	10 803	17 225	33 808
Romania	* 58 000	* 58 000	* 60 000	* 60 000	* 60 000
Soviet Union	* 280 000	* 280 000	* 290 000	* 300 000	* 310 000
Spain (c)	86 275	90 964	93 222	116 283	* 90 000
Sweden (e)	44 742	44 746	52 167	53 845	* 52 000
Turkey	—	57 800	75 200	75 000	* 73 000
Yugoslavia	52 000	25 000	56 000	48 000	56 000
Egypt	850	2 128	2 633	3 337	3 271
Kenya	1 616	1 115	1 869	964	868
Mozambique	* 850	* 850	* 900	* 900	* 900
Nigeria	* 5 000	* 5 000	* 5 000	* 5 000	...
South Africa	30 354	46 138	51 230	52 545	47 416
Zambia	851	1 027	832	799	50
Zimbabwe	1 499	3 029	896	726	1 085
Mexico	143 808	73 239	114 319	127 554	127 000
USA (e)	607 721	671 030	665 900	666 800	671 000
Argentina	63 845	68 224	42 921	46 297	47 000
Brazil (g)	66 376	84 134	96 187	103 597	* 110 000
Chile	3 414	823	2 452	903	900
Colombia	30 000	30 000	26 508	26 455	27 000
Peru	3 905	* 4 000	4 230	9 760	9 000
Uruguay	1 759	1 145	1 625	2 572	* 3 000
Venezuela	...	65 608	26 020	70 262	69 800
Burma (a)	864	1 709	2 091	1 971	* 1 800
Hong Kong	2 059	2 299	3 378	3 157	742
India	42 572	55 307	54 710	51 675	50 157
Japan	360 466	393 698	365 445	415 950	...
Korea, Republic of	20 138	26 208	49 374	69 200	36 238
Pakistan	2 636	2 795	3 951	4 833	* 4 500
Philippines	3 907	15 240	16 073	18 073	18 143
Sri Lanka	1 270	3 198	3 679	3 160	3 790
Thailand	13 025	12 257	17 619	32 583	* 31 750
Australia	3 054	4 519	1 877	2 770	* 1 800
World total (f)	2 870 000	3 100 000	3 200 000	3 400 000	3 400 000

(a) Years ended 31 March following that stated

(b) Including feldspar sand and pegmatite

(c) Including pegmatite

(d) Underground: production of ground withheld

(e) Sold or used by producers

(f) Excluding feldspar known to have been produced in Czechoslovakia, Namibia, China and the United Kingdom

(g) Includes beneficiated and direct shipping ore

Exports of Feldspar

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	2 759	2 516	2 413	1 956	2 118
Belgium-Luxembourg (a)	8 867	6 744	6 975	8 544	7 462
France	38 362	37 528	43 640	52 453	51 726
Germany, Federal Republic of	10 324	13 553	20 080	17 696	16 810
Italy	21 926	23 633	28 793	28 482	35 578
Netherlands (b)	30	241	2 714	2 524	3 929
Austria (a)	100	1	23	—	—
Finland (a)	49 169	51 681	52 466	54 082	50 810
Norway					
Crude	35 336	32 040	23 728	25 300	29 322
Ground	69 946	53 967	50 480	53 436	65 180
Portugal (a)	3 000	1 946	3 931	2 148	9 095
Spain (a)	1 406	2 474	5 720	6 989	1 901
Sweden (a)	31 776	30 106	40 253	37 832	34 713
Switzerland (a)	380	593	509	397	255
Yugoslavia	10 483	6 974	8 932	7 904	9 695
South Africa	1 878	3 247	2 543	2 712	3 212
USA (a)	8 748	5 711	5 627	9 372	11 227
Hong Kong (c)	161	1 667	3 928	6 385	13 249
of which: Re-exports	72	384	2 556	4 175	11 799
India	6 509	11 983	13 533	12 241	...
Japan	4 495	9 512	11 224	15 157	23 630
Korea, Republic of	5 268	10 951	17 955	...	...
Singapore	196	691	1 049	585	4 469
Thailand	962	221	4 610	413	...

(a) May include some leucite and nepheline

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(c) Including fluorspar

Imports of Feldspar

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	132 310	132 725	132 041	125 735	118 993
Belgium-Luxembourg (a)	61 531	66 232	70 659	64 403	67 186
Denmark	9 497	10 416	9 557	8 903	...
France	8 669	10 806	17 323	17 024	17 839
Germany, Federal Republic of	49 279	41 250	48 666	54 364	52 808
Italy	6 678	7 745	9 238	7 983	8 192
Netherlands (b)	4 703	20 910	11 701	25 630	19 115
Austria (a)	6 488	6 650	6 713	5 948	4 564
Finland (a)	46	27	162	1 917	61
Greece (a)	7 486	10 801	12 325	11 850	20 644
Poland	15 800	16 383	16 714	15 399	...
Portugal (a)	2 301	1 976	2 142	2 691	2 209
Spain (a)	16 633	13 452	13 693	15 203	16 256
Sweden (a)	4 488	11 803	11 674	7 166	7 657
Switzerland (a)	9 250	12 308	14 785	10 065	8 605
Turkey	85	105	13	—	...
Yugoslavia	1 070	629	1 189	1 001	1 150
Algeria (a)	952	1 371	2 585	3 091	...
Morocco (a)	27	25	58	20	84
South Africa (a)(c)	95	135	26	40	90
Tunisia (c)	800	750	1 070	1 686	...
Mexico	2 259	1 416	600	725	...
USA	263	84	220	35	241
Venezuela	147	610	852	621	...
Hong Kong (c)	1 910	2 312	3 975	6 327	13 838
Indonesia (a)	1 144	2 584	6 014	6 766	10 768
Iran (a)(c)(e)	1 972	2 224	...	...	...
Israel (a)(f)	459	610	2 264	227	...
Japan (a)	5 091	5 346	12 335	9 064	5 269
Jordan (a)	—	626	—	289	415
Malaysia	2 497	6 333	7 037	...	...
Philippines (c)	2 649	3 695	2 968	2 940	3 354
Singapore	2 013	4 906	5 057	4 448	4 618
Taiwan (a)(c)	7 933	17 885	28 471	48 280	44 221
Thailand (a)	737	1 207	301	1 195	...
Australia (a)	10 591	4 577	10 250	...	...
New Zealand (a)(c)(d)	1 608	1 243	1 925	1 747	997

(a) May include some leucite and nepheline

(b) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(c) Including fluorspar

(d) Years ended 30 June of that stated

(e) Years ended 20 March following that stated

(f) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Fluorspar

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom (a)	235 000	217 000	206 000	189 269	154 000
France (b)	730 000	675 000	531 600	529 600	471 100
Germany, Federal Republic of	74 642	64 210	83 750	75 722	63 172
Italy	231 253	210 812	185 749	171 216	182 792
Czechoslovakia	* 90 000	* 93 000	* 96 000	* 96 000	* 96 000
German Democratic Republic	* 90 000	* 90 000	* 100 000	* 100 000	* 100 000
Greece	1 000	1 000	500	610	360
Romania	* 15 000	* 15 000	* 20 000	* 20 000	* 20 000
Soviet Union	* 475 000	* 490 000	* 500 000	* 510 000	* 520 000
Spain	334 864	293 469	310 461	301 295	* 410 000
Sweden	3 405	3 324	2 414	—	—
Turkey	1 405	1 300	1 700	1 253	* 1 270
Egypt	2 365	1 714	2 365	2 270	682
Kenya	54 600	75 027	124 000	108 274	68 700
Morocco	47 421	51 450	40 000	59 200	* 60 000
South Africa	202 583	290 718	350 679	393 276	451 112
Tunisia	30 161	34 538	28 887	33 100	36 800
Zimbabwe	585	690	522	312	—
Canada	55 100	59 700	59 500	—	—
Mexico	1 088 816	896 535	660 087	959 784	983 900
USA	126 927	170 796	153 758	117 415	99 154
Argentina	54 358	40 077	43 792	* 41 000	42 200
Brazil (d)	63 980	31 160	66 645	61 800	70 000
China	* 350 000	* 350 000	* 400 000	* 400 000	* 400 000
India	14 345	17 632	18 791	17 546	21 173
Korea, Dem. P.R. of	* 30 000	* 30 000	* 40 000	* 40 000	* 40 000
Korea, Republic of	28 296	20 270	12 981	11 368	8 450
Mongolia	* 302 000	* 302 000	* 335 000	* 455 000	* 454 000
Pakistan	11	10	—	—	...
Thailand	286 149	200 364	239 625	259 786	259 852
World total (c)	5 000 000	4 700 000	4 600 000	5 000 000	5 000 000

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

(b) Washed or sorted

(c) Excludes fluorspar known to have been produced in Bulgaria

(d) Includes beneficiated and direct shipping ore

Fluorspar

Exports of Fluorspar

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	48 443	34 531	23 468	7 935	26 337
Belgium-Luxembourg	343	840	1 439	4 541	4 984
France	109 339	92 135	93 343	95 284	98 742
Germany, Federal Republic of	20 925	14 478	10 979	14 789	16 610
Italy	84 416	104 609	55 749	60 952	55 080
Spain	224 302	226 175	200 722	193 485	101 546
Sweden	381	651	336	538	824
Kenya (a)	49 163	90 465	100 208	102 900	59 352
Morocco	29 295	27 548	78 201	69 823	62 997
South Africa	126 554	215 915	288 626	384 387	471 498
Tunisia (a)	12 050	16 670	14 000	—	...
Mexico	902 253	663 166	604 951	709 705	...
USA	8 215	4 601	6 026	7 518	13 132
Argentina	2 034	5 739	240	...	...
Brazil	11 075	203	50	—	—
China (b)	* 194 000	* 220 000	* 250 000	* 262 000	* 303 200
Korea, Dem. P.R. of (a)(b)	* 5 900	* 3 000	* 9 000	* 6 800	...
Korea, Republic of	10 730	6 607	3 864	1 152	...
Thailand	211 699	284 287	241 459	205 697	...

(a) Including feldspar

(b) IGS estimates, based on known imports into certain countries

Imports of Fluorspar

Country	1975	1976	1977	1978	1979
United Kingdom	70	20	5 795	3 782	27 119
Belgium-Luxembourg	9 101	16 202	14 855	9 953	14 550
Denmark	2 885	3 969	2 179	4 462	...
France	16 089	2 152	14 845	1 796	1 228
Germany, Federal Republic of	261 093	244 644	206 708	240 385	248 690
Italy	36 066	50 062	30 634	46 973	78 717
Netherlands (b)	23 232	26 452	15 063	13 863	10 988
Austria	14 533	14 609	13 172	16 077	18 369
Finland	4 385	3 775	6 383	2 204	5 486
Greece	1 223	1 223	1 877	1 533	10 302
Norway	48 180	38 306	42 270	44 972	46 941
Poland	45 130	48 548	72 315	86 640	...
Soviet Union	493 890	* 500 000	* 550 000	* 550 000	* 550 000
Sweden	13 357	15 054	10 502	13 651	15 858
Turkey	160	110	609	149	70
Yugoslavia	6 638	5 618	6 861	3 140	5 121
Algeria	952	118	535	37	...
South Africa (a)(c)	95	135	26	40	90
Tunisia (c)	800	750	1 070	1 686	...
Canada	157 222	137 310	124 494	170 236	167 904
USA	1 005 836	889 170	912 786	821 493	894 926
Venezuela	390	5 429	182	3 345	...
Hong Kong (c)	1 910	2 312	3 975	6 327	13 838
India	4 206	4 062	4 752	5 000	...
Iran (a)(c)(e)	1 972	2 224	...	...	...
Japan	362 500	383 390	373 228	371 387	467 135
Malaysia (a)	1 308	2 533	7 698	...	...
Philippines (c)	2 649	3 695	2 968	2 940	3 354
Taiwan (a)(c)	7 933	17 885	28 471	48 280	44 221
Australia	20 042	36 046	27 029	32 711	27 012
New Zealand (a)(c)(d)	1 608	1 243	1 925	1 747	997

(a) May include some leucite and nepheline

(b) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(c) Including feldspar

(d) Years ended 30 June of that stated

(e) Years ended 20 March following that stated

Gold

Production of Gold

kilograms

Country	1975	1976	1977	1978	1979
France	1 556	1 898	1 569	1 855	1 263
Germany, Federal Republic of	66	76	74	66	* 75
Finland	690	820	852	905	881
Portugal	356	312	275	284	333
Romania	* 1 900	* 1 900	* 2 000	* 2 000	* 2 000
Soviet Union	* 250 000	* 250 000	* 250 000	* 250 000	* 300 000
Spain	3 361	3 963	3 371	3 200	* 4 800
Sweden	1 965	1 934	2 113	2 373	2 200
Yugoslavia	3 856	3 963	5 033	4 000	* 4 400
Angola	* 31	* 31	* 31	* 31	...
Burundi	11	13	* 14	* 14	* 14
Cameroon	3	8	6	* 6	* 6
Congo	* 216	* 218	* 218	* 206	* 203
Ethiopia (b)	621	842	270	240	* 247
Gabon	130	96	73	30	* 5
Ghana	16 326	16 561	14 957	12 505	11 094
Liberia (a)	* 140	* 140	* 140	* 140	* 140
Madagascar	5	2	2	4	1
Mauritania	1 305	690	870	* 250	—
South Africa	713 447	713 390	699 887	704 449	703 473
Zaire	3 826	2 746	2 715	2 286	2 270
Zambia (c)	* 265	341	244	* 241	* 245
Zimbabwe	10 999	12 086	12 506	12 414	12 063
Canada	51 433	52 621	53 921	53 967	49 175
Costa Rica	* 560	* 300	* 400	* 500	* 450
Dominican Republic	6 080	12 871	10 839	10 453	11 000
El Salvador	271	95	67	113	120
Honduras	78	71	77	* 80	* 80
Mexico	4 501	5 064	6 616	6 283	5 911
Nicaragua	2 186	2 359	2 046	2 050	1 900
USA	32 729	32 598	34 225	31 068	28 601
Bolivia	1 649	896	431	770	948
Brazil	5 351	4 922	5 355	9 359	* 10 000
Chile	3 997	4 017	3 620	3 182	3 465
Colombia	9 624	9 274	7 992	7 563	* 8 000
Ecuador	254	343	244	85	110
French Guiana	76	88	150	* 160	* 160
Guyana	562	487	370	479	329
Peru	3 135	2 470	3 247	3 206	3 805
Surinam	5	1	12	9	...
Venezuela	570	513	541	372	440
China	* 1 500	* 2 500	* 3 000	* 4 700	* 6 000
India	2 825	3 132	3 014	2 774	2 636
Indonesia	329	355	256	254	170
Japan	4 464	4 282	4 635	4 516	4 034
Kampuchea, Democratic	* 15	* 30	* 30	* 30	...
Korea, Dem. P.R. of	* 5 000	* 5 000	* 5 000	* 5 000	* 5 000
Korea, Republic of	415	583	665	852	749
Malaysia	114	141	153	210	197
Philippines	15 632	15 589	17 373	18 243	17 450
Taiwan	688	838	466	417	443

Production of Gold

kilograms

Country	1975	1976	1977	1978	1979
Australia	16 386	15 637	19 417	20 142	18 382
Fiji	2 138	2 045	1 519	872	907
New Zealand	85	102	223	219	218
Papua New Guinea (e)	19 827	20 103	20 773	23 367	19 703
Solomon Islands	25	24	14	18	22
World total (d)	1 200 000	1 200 000	1 200 000	1 200 000	1 200 000

(a) Years ended 31 August of that stated

(b) Years ended 6 July of that stated

(c) Contained in blister copper, refinery muds and electrolytic copper

(d) Gold is also produced in Bulgaria, Czechoslovakia and in small quantities in Argentina, Burma, German Democratic Republic, Hungary, Kenya, Mali, Mozambique, Niger, Nigeria, Sudan and Thailand

(e) Years ended 30 June of that stated

Gold

Exports of Gold

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal –					
Refined	510 206	563 674	659 948	640 466	492 165
Other	4 457	3 333	2 659	13 946	5 219
Waste & scrap	494	6 074	924	15 766	31 170
Belgium-Luxembourg					
Metal	14 786	12 446	12 415	13 902	18 143
France					
Metal	110 282	91 954	40 790	23 350	33 806
Waste & scrap	5 863	1 901	221	10 566	28 311
Germany, Federal Republic of					
Metal	20 819	22 883	23 710	50 335	27 218
Waste & scrap	1 312	4 448	1 870	651	84
Italy					
Metal	786	574	429	1 986	21 907
Netherlands					
Metal	16 932	16 653	22 605	26 450	29 491
Waste & scrap	12 268	27 285	7 000	5 000	17 000
Austria					
Metal	245	267	473	367	640
Finland					
Metal	238	39	110	130	116
Norway					
Metal	63	208	255	159	137
Sweden					
Metal	2 000	2 000	2 000	2 000	2 000
Waste & scrap	59 000	51 000	55 000	50 000	40 000
Switzerland					
Metal	22 876	50 237	82 104	(c) 5 809	(c) 7 039
Ghana					
Metal	15 962	...	...	...	...
South Africa					
Metal	£800 000	£1 200 000	£7 300 000	£4 000 000	£10 600 000
Zaire					
Metal (d)	* 600	* 8 700	* 100	...	...
Canada					
Ores & concentrates (b)	6 544	5 724	5 098	8 316	6 421
Metal	49 488	57 655	48 854	50 486	55 894
Nicaragua					
Metal	2 153	1 920	...	2 084	1 056
USA					
Ore (a)	12 254	10 498	12 310	15 086	28 041
Metal	96 479	99 323	257 390	156 282	484 910
Colombia					
Ore	...	417 800	375 550	...	...
Metal	...	204	...	...	...
Guyana					
Metal	344	16	2	1	...
Peru					
Ore	1 006	...	...	...	...
Hong Kong					
Metal (Re-exports)	14 923	12 081	445	2 611	9 319
Japan					
Metal	...	5 088	4 817	6 378	7 151
Philippines					
Ores & concentrates (b)	10 431	12 290	13 045	12 789	11 422
Metal	4 833	4 358	2 921	38	—

Exports of Gold

Gold
kilograms

Country	1975	1976	1977	1978	1979
Australia					
Ores, concentrates & unrefined metal (b)	5 155	4 549	4 857	2 415	2 800
Refined metal	3 187	10 147	8 865	9 408	3 700
Fiji					
Metal	2 139	2 045	1 519	872	907
Papua New Guinea					
Metal (e)	19 827	20 103	20 773	...	...

Note: In this table the term 'metal' as used here includes both unwrought and partly worked gold and alloys but excludes gold coin

(a) Including base bullion and scrap

(b) Au content

(c) Partly worked only

(d) IGS estimates, based on part figures given in trade account

(e) Years ended 30 June of that stated

Gold

Imports of Gold

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal –					
Refined	479 216	602 607	641 999	511 150	785 598
Unrefined	7 706	5 455	4 435	2 215	11 270
Other	2 114	2 241	7 139	4 613	10 370
Waste & scrap	19 440	9 113	12 284	10 390	85 697
Belgium-Luxembourg					
Metal	81 585	40 421	31 468	25 768	24 287
Denmark					
Metal	...	2 546	2 901	2 472	...
France					
Metal	118 780	99 595	77 439	71 401	77 565
Waste & scrap	6 213	319	6 958	9 074	11 041
Germany, Federal Republic of					
Metal	67 002	91 787	111 427	113 863	107 152
Waste & scrap	132 833	73 503	82 665	80 699	115 022
Italy					
Metal	86 458	162 190	187 692	214 314	189 540
Netherlands					
Metal	30 095	33 843	23 464	35 720	33 765
Waste & scrap	1 813	1 250	1 000	2 000	3 000
Austria					
Metal	8 392	30 071	10 709	8 292	3 575
Finland					
Metal	776	1 088	952	1 312	1 493
Malta					
Metal	551	527	607	876	643
Norway					
Metal	651	1 210	1 983	1 194	1 215
Waste & scrap	23	3	3 303	1 983	244
Portugal					
Metal	91	91	366	194	...
Sweden					
Metal	1 000	2 000	1 000	1 000	1 000
Waste & scrap	4 000	3 000	5 000	2 000	...
Switzerland					
Metal	3 779	2 887	4 245	(b) 1 294	(b) 3 431
Ivory Coast					
Metal	60	196	228	301	143
Kenya					
Metal	154	20	9	8	74
Madagascar					
Metal	575	37	470	—	...
Morocco					
Metal	3 447	5 748	5 150	2 762	184
South Africa					
Metal	193	249	74	61	184
Tunisia					
Metal	992	624	767	1 173	...
Canada					
Ores & concentrates (c)	4 849	1 395	1 741	348	774
Metal	13 161	6 755	11 911	41 274	92 130
USA					
Ore (a)	9 737	5 173	7 448	7 550	7 959
Metal	73 062	77 439	131 093	138 320	136 044
Brazil					
Metal	3 057	3 245	2 590	3 156	3 264
Brunei					
Metal	5	93	162	140	...
Cyprus					
Metal	343	533	621	782	...

Imports of Gold

Country	1975	1976	1977	1978	1979
Hong Kong					
Metal	21 694	115 772	28 814	54 372	105 587
Indonesia					
Metal	293	313	10 250	5 720	2 200
Iran (d)					
Metal	32 379	95 436	...	...	...
Japan					
Metal	...	73 540	51 649	98 514	62 896
Malaysia					
Metal	323	1 453	536	...	...
Saudi Arabia					
Metal	55 956	827 197	93 907	...	...
Syria					
Metal	200	6 600	22	388	...
Taiwan					
Metal	5 699	11 901	14 300	8 143	8 240
Thailand					
Metal	69	79	686	7 171	...
Australia					
Metal	2 842	2 853	1 736	628	585

Note: In this table the term 'metal' as used here includes both unwrought and partly worked gold and alloys but excludes gold coin

(a) Including scrap

(b) Partly worked only

(c) Au content

(d) Years ended 20 March following that stated

Graphite

Production of Graphite

tonnes

Country	1975	1976	1977	1978	1979
Germany, Federal Republic of (b)	13 557	14 026	13 456	11 927	10 282
Italy	1 492	3 848	3 819	4 108	4 102
Austria (a)	30 586	33 057	35 288	40 501	40 519
Norway	8 925	9 071	9 097	11 151	10 999
Romania	* 6 000	* 6 000	* 6 000	* 6 000	* 6 000
Soviet Union	* 90 000	* 95 000	* 95 000	* 95 000	* 100 000
Madagascar	13 313	16 216	14 677	16 624	13 378
South Africa	523	530	911	583	394
Mexico	60 814	60 337	58 432	52 264	48 500
Argentina	15	145	85	25	90
Brazil	5 260	6 018	9 187	10 357	11 000
Burma (d)	102	161	205	309	* 250
China	* 50 000	* 50 000	* 60 000	* 80 000	* 100 000
India	31 255	38 273	48 455	63 784	50 933
Korea, Dem. P.R. of	* 75 000	* 75 000	* 75 000	* 75 000	* 75 000
Korea, Republic of	47 232	41 690	65 955	56 319	56 693
Sri Lanka	7 918	8 135	8 893	10 708	9 432
World total (c)	442 000	458 000	504 000	535 000	538 000

Note: This table excludes synthetic graphite

(a) Crude

(b) Including production from imported crude graphite

(c) Excludes graphite known to have been produced in Czechoslovakia, Namibia, USA and Zimbabwe

(d) Years ended 31 March following that stated

Exports of Graphite

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	2 795	1 717	2 544	2 649	3 158
Belgium-Luxembourg	250	508	68	67	50
France	589	1 029	662	1 051	1 518
Germany, Federal Republic of	6 107	7 284	7 483	7 927	6 860
Italy	1 792	1 314	1 943	2 823	3 855
Netherlands	217	493	191	594	644
Austria	15 500	16 374	16 859	17 787	17 870
Norway	8 395	9 019	9 147	10 870	11 178
Soviet Union (a)	* 14 400	* 63 600	* 10 900	* 12 200	* 11 700
Sweden	73	97	40	28	47
Madagascar	14 490	17 021	17 003	16 861	14 588
South Africa	434	—	374	311	—
Mexico	47 798	45 706	45 648	45 136	...
USA	9 603	11 100	12 808	8 776	8 683
China (a)	* 12 000	* 12 200	* 13 100	* 13 700	* 25 000
Hong Kong (Re-exports)	2 559	1 886	840	622	817
India	50	14	44	352	...
Japan	860	1 704	1 311	1 406	1 554
Korea, Dem. P.R. of	* 20 400	...	...	...	...
Korea, Republic of	35 500	41 141	64 644	50 807	...
Sri Lanka	6 744	7 609	8 058	11 415	...
Taiwan	314	737	614	785	615

Note: This table excludes synthetic graphite

(a) IGS estimates, based on known imports into certain countries

Graphite

Imports of Graphite

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	13 998	13 244	17 827	17 166	14 584
Belgium-Luxembourg	1 915	1 069	891	3 959	1 842
Denmark	459	493	741	824	...
France	6 564	5 890	5 727	6 781	7 744
Germany, Federal Republic of	26 043	29 665	29 369	28 583	26 063
Italy	3 287	4 782	4 679	5 535	4 691
Netherlands	388	479	456	892	1 169
Austria	796	269	779	1 614	1 710
Finland	516	188	181	104	173
German Democratic Republic	5 216	5 553	5 725	6 214	...
Greece	201	243	339	233	154
Norway	892	981	615	664	784
Poland	11 583	12 207	10 025	11 906	...
Portugal	217	284	270	294	184
Spain	1 545	1 501	1 095	1 484	1 778
Sweden	861	1 501	855	549	855
Switzerland	179	219	175	190	202
Turkey	573	586	450	415	169
Yugoslavia	1 569	1 853	1 806	1 812	1 824
Algeria	98	122	473	178	...
Ethiopia	73	...	140	1	...
Morocco	11	11	5	13	0
Mozambique	12	2	6	...	...
South Africa	894	480	461	520	941
Sudan	—	—	110	14	...
Mexico	154	176	239	164	...
USA	58 322	70 486	76 538	87 711	75 085
Argentina	488	425	574	...	...
Brazil	142	109	48	96	112
Uruguay	12	11	14	13	11
Venezuela	279	405	631	425	...
Hong Kong	2 891	2 171	1 344	1 201	1 325
India	404	647	698	540	...
Indonesia	165	93	206	107	90
Iran (a)	2 522	756	...	...	...
Israel (c)	4	8	27	17	...
Japan	57 638	33 539	64 991	48 895	70 955
Malaysia	357	427	375	...	...
Pakistan (b)	...	552	2 047	957	607
Philippines	168	113	182	160	291
Singapore	198	215	162	151	519
Taiwan	5 825	5 451	5 943	9 512	13 722
Thailand	1 217	1 457	1 324	1 494	...
Australia	983	1 367	1 720	2 274	...
New Zealand (b)	141	55	108	84	68

Note: This table excludes synthetic graphite

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Gypsum

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Gypsum	3 258 000	3 324 000	3 236 000	3 230 000	* 3 500 000
Anhydrite	221 000	26 000	25 000	92 000	...
Belgium (a)	221 000	220 000	167 439	183 487	192 938
France					
Gypsum	6 380 252	6 128 637	6 168 497	} 6 071 000	6 240 000
Anhydrite	523 661	501 298	531 276		
Germany, Federal Republic of					
Gypsum	1 726 835	1 709 316	1 796 706	1 749 136	1 718 921
Anhydrite	357 405	390 498	421 172	489 219	531 693
Irish Republic	331 000	355 000	342 000	385 790	411 000
Italy	4 172 174	4 200 000	4 180 474	* 4 170 000	* 4 200 000
Luxembourg	5 266	5 037	5 319	4 476	1 682
Austria					
Gypsum	619 713	661 849	655 413	626 475	670 930
Anhydrite	95 230	108 370	153 688	139 490	127 178
Bulgaria	* 276 000	* 288 000	* 350 000	* 350 000	* 360 000
Czechoslovakia (a)	637 000	660 000	682 000	697 000	734 000
German Democratic Republic (c)	305 756	301 595	303 886	* 309 000	* 300 000
Greece	416 357	444 686	518 680	507 062	* 450 000
Poland (d)	326 000	326 000	341 000	329 000	...
Portugal	149 873	159 594	175 961	208 701	* 172 000
Soviet Union	* 5 000 000	* 5 000 000	* 5 200 000	* 5 300 000	* 5 400 000
Spain	4 220 024	4 908 673	5 481 522	5 368 600	* 4 500 000
Turkey	* 38 000	* 32 000	65 327	60 332	* 64 000
Yugoslavia	545 727	504 730	579 092	602 626	* 450 000
Algeria	* 175 000	* 175 000	* 175 000	* 175 000	* 190 000
Angola	* 40 000	* 20 000	* 25 000	* 25 000	* 25 000
Egypt	600 426	466 604	508 635	793 796	796 000
Kenya	* 100 000	78 020	25 999	4 080	400
Libya	2 891	* 60 000	* 290 000	* 180 000	* 180 000
Mauritania	9 000	10 965	10 163	13 400	* 13 600
Niger	1 017	2 588	* 2 500	* 2 500	* 2 700
South Africa	538 622	482 375	439 688	388 734	377 467
Sudan	16 257	7 523	11 361	* 20 000	* 20 000
Tanzania	12 839	57 149	1 159	* 20 000	* 20 000
Zambia	7 536	4 650	4 634	1 734	1 180
Canada (a)	5 719 451	6 002 154	7 233 931	8 074 441	8 105 000
Dominican Republic	353 397	174 960	161 168	168 178	90 000
Guatemala	12 319	12 535	19 623	37 771	25 000
Jamaica	239 579	248 963	214 824	132 403	58 000
Mexico	1 255 903	1 414 237	1 495 730	1 757 870	* 1 800 000
Nicaragua	* 35 000	* 30 000	* 36 000	* 36 000	* 36 000
USA	8 846 000	10 868 000	12 147 000	13 509 000	13 272 000
Argentina	612 733	507 125	546 968	552 000	562 000
Brazil	403 847	545 463	543 046	475 000	550 000
Chile	131 659	65 079	147 104	174 143	162 482
Colombia	200 000	205 000	210 000	255 000	270 000
Ecuador	30 000	44 000	44 000	45 000	45 000
Paraguay	15 000	16 000	14 000	9 000	9 000
Peru	210 543	171 726	215 000	239 000	220 000
Venezuela	211 686	111 000	156 000	367 000	360 000

Gypsum

Production of Gypsum

tonnes

Country	1975	1976	1977	1978	1979
Burma (b)	11 219	16 798	22 608	38 350	* 36 000
China	* 900 000	* 1 000 000	* 1 000 000	* 1 000 000	* 1 000 000
Cyprus	30 481	66 043	86 364	60 700	64 100
India	816 000	727 000	778 000	884 000	861 000
Iran (e)	* 5 400 000	* 6 500 000	* 6 900 000	* 8 000 000	* 6 500 000
Iraq	155 551	* 160 000	* 160 000	* 160 000	* 160 000
Israel	* 200 000	* 200 000	* 200 000	* 200 000	* 200 000
Japan	187 105	64 831	1 000	—	...
Jordan	30 000	20 900	21 800	36 300	* 59 900
Lebanon	* 13 000	* 12 700	15 400	11 800	* 10 900
Mongolia	* 25 000	* 25 000	* 27 000	* 27 000	* 27 000
Pakistan (a)	328 403	443 000	283 000	290 000	* 300 000
Philippines	6 867	2 820	1 710	—	—
Saudi Arabia	30 482	30 481	30 481	* 200 000	* 300 000
Syria	93 600	64 800	88 800	86 182	64 440
Taiwan	3 687	2 303	7 412	3 385	2 535
Thailand	255 242	267 822	380 090	280 904	352 398
Vietnam	* 7 000	* 10 000	* 12 000	* 14 000	* 14 000
Australia	932 638	941 944	915 991	946 331	* 1 000 000
World total (f)	59 000 000	62 600 000	67 000 000	70 600 000	68 600 000

(a) Including anhydrite

(b) Years ended 31 March following that stated

(c) Crude estimated from production of calcined gypsum

(d) Calcined

(e) Years ended 20 March following that stated

(f) Excluding gypsum produced in Cuba, Ethiopia, Honduras, Romania and Switzerland

Exports of Gypsum

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Crude	4 708	3 600	3 886	4 069	2 751
Calcined	10 013	11 594	10 881	12 401	14 838
Belgium-Luxembourg					
Crude	12 542	13 854	3 874	10 136	56 832
Calcined	34 465	53 640	34 134	43 980	39 755
Denmark					
Crude & calcined	56	67	270	130	...
France					
Crude	842 878	723 997	898 203	798 698	949 162
Calcined	225 225	208 380	213 559	209 855	189 839
Germany, Federal Republic of					
Crude	122 456	75 623	94 146	129 380	115 792
Calcined	163 665	196 402	240 104	226 603	241 126
Irish Republic					
Crude	67 594	66 504	31 995	33 726	29 607
Calcined			30 785	32 397	27 577
Italy					
Crude	151	712	353	247	93
Calcined	10 408	9 311	11 086	10 914	11 837
Netherlands					
Crude	11 081	13 538	427	928	1 532
Calcined			1 475	1 438	1 943
Austria					
Crude	91 062	96 626	94 814	99 276	121 598
Calcined	36 496	56 842	70 987	90 468	128 117
German Democratic Republic					
Calcined	64 471	76 730	77 208	68 681	...
Greece	1 115	6 193	7 305	5 622	...
Norway					
Crude	20 297	17 014	11 454	—	—
Poland	342 142	261 541	62 711	26 470	...
Soviet Union (a)	* 291 000	* 208 100	* 177 500	* 112 600	* 59 900
Spain					
Crude & calcined	133 096	363 196	635 032	775 745	1 110 653
Switzerland					
Ground & calcined	3 190	2 447	923	620	667
Turkey					
Crude & calcined	1 500	50	1 950	5 000	...
Egypt	650	9 523	25 019	18 693	9 100
Kenya	3 093	124	2 247	1 559	270
Morocco					
Crude	195 496	146 172	173 520	218 073	228 871
Calcined	2 460	3 140	2 037	4 160	8 010
South Africa	14 069	11 400	14 229	3 654	3 237
Tanzania	—	—	4 000	...	...
Canada					
Crude	3 691 676	3 798 243	4 994 324	5 178 604	5 474 736
Dominican Republic	150 252	137 892	113 297	195 998	190 794
Jamaica	248 355	215 504	248 400	152 816	...
Mexico					
Crude	959 214	1 086 799	1 309 473	1 535 295	...
Calcined	16	33	17	9	...
Nicaragua	16 279	14 418	...	...	13 341
USA					
Crude	8 661	19 314	16 632	17 867	4 019
Calcined	59 824	239 006	114 740	696 720	76 657
Argentina	23 373	16 727	21 752	...	...
Bolivia	570	...	—	1 000	—
Venezuela	16 960	17 800	16 250	11 050	...
Cyprus					
Crude	20	10 324	34 922	5 007	4 999
Calcined	—	884	4 186	2 688	2 101

Gypsum

Exports of Gypsum

tonnes

Country	1975	1976	1977	1978	1979
Iran (b)					
Crude	1 942	} 176	...	...	...
Calcined	1 636				
Iraq					
Crude & calcined	7 243	12 022	...	...	...
Japan					
Crude	52	342	767	1 394	895
Calcined	2 532	15 370	5 707	4 778	5 262
Korea, Republic of					
Crude	680	15	71 897	...	...
Calcined	65 790	89 745	19	...	...
Saudi Arabia					
Crude & calcined	19 411	468	2 708	...	...
Singapore					
Crude & calcined	357	610	682	881	1 405
Syria	46 504	3 689	65 682	1 001	...
Taiwan	209	642	535	1 564	2 045
Thailand					
Crude	92 030	65 850	59 980	82 212	...
Calcined	507	439	457	1 321	...
Australia					
Crude & calcined	215 776	187 723	190 512	181 040	424 678

Note: In this table the term 'crude' as used here may include some anhydrite

(a) IGS estimates, based on known imports into certain countries

(b) Years ended 20 March following that stated

Imports of Gypsum

Country	1975	1976	1977	1978	1979
United Kingdom					
Crude	13 201	44 490	37 854	55 725	72 474
Calcined	75 021	41 438	49 055	40 240	38 940
Belgium-Luxembourg					
Crude	345 896	353 155	320 512	341 702	250 882
Calcined	96 217	63 679	119 275	104 978	123 296
Denmark					
Crude	272 875	287 910	366 031	293 907	...
Calcined	3 666	4 011	3 948	4 105	...
France					
Crude	9 639	13 529	10 274	12 544	8 657
Calcined	4 442	5 225	3 737	4 356	4 640
Germany, Federal Republic of					
Crude	31 478	25 597	22 123	29 532	55 358
Calcined	271 842	302 108	323 163	344 731	516 735
Irish Republic					
Crude			1 029	735	780
Calcined	3 236	6 928	3 239	3 246	4 405
Italy					
Crude	211	192	133	65	62
Calcined	8 786	14 353	16 057	17 895	16 115
Netherlands					
Crude			280 322	268 012	246 404
Calcined	376 549	363 211	126 173	122 327	124 161
Austria					
Crude	1 371	1 990	2 121	3 238	4 558
Calcined	6 774	9 413	5 366	8 187	9 623
Finland					
Crude	148 557	120 610	123 075	81 492	157 468
Calcined	3 115	3 063	2 295	2 066	3 204
Greece					
Crude	24	48	18	35	50
Calcined	848	882	886	1 165	1 288
Hungary					
Calcined	60 418	66 359	67 465	74 382	85 931
Iceland					
Crude	10 986	6 873	8 453	7 481	3 522
Norway					
Crude	210 857	185 867	168 039	141 858	175 631
Calcined	4 084	3 337	2 775	2 504	2 331
Portugal					
Crude	19 932	24 569	25 922	* 31 633	32 742
Calcined	1 204	535	420	139	148
Spain					
Crude & calcined	3 230	3 351	4 193	4 902	5 863
Sweden					
Crude	285 675	213 357	302 736	256 304	368 434
Calcined	9 721	6 522	6 342	5 970	5 899
Switzerland					
Crude	54 640	40 973	34 593	27 182	32 739
Ground & calcined	25 312	21 482	21 574	25 272	30 399
Yugoslavia					
Crude	7 712	5 179	11	9	8
Algeria					
Crude & calcined	5 881	1 168	4 480	3 642	...
Cameroon					
Crude & calcined	5 493	5 804	7 748	20 867	...
Ghana					
Crude & calcined	16 590	...	...	...	...
Ivory Coast					
Crude	35 699	41 367	45 167	68 066	46 820
Calcined	3 426	3 465	4 284	5 098	6 727
Liberia					
Crude & calcined	1 008	2 955	1 596	1	...
Libya					
Crude & calcined	4 593	2 870	3 253	658	...
Madagascar					
Crude & calcined	5 298	2 064	2 240	3 004	...

Gypsum

Imports of Gypsum

tonnes

Country	1975	1976	1977	1978	1979
Melilla	1 914	1 345	653	1 845	543
Mozambique					
Crude	8 939	6 952	3 994	...	...
Calcined	19	14	19	...	...
Senegal					
Crude	—	...	12 115	...	...
Calcined	608	...	757	...	...
South Africa					
Crude & calcined	5 616	5 826	5 605	5 216	5 940
Togo					
Crude & calcined	8 709	...	...	...	...
Tunisia					
Crude & calcined	169	190	199	169	...
Zaire					
Crude & calcined	12 705	22 413	395	144	...
Zambia	177	43	30	...	...
Canada					
Crude	55 338	54 769	24 042	70 995	152 463
Calcined	19 705	25 613	21 289	21 377	18 232
Costa Rica					
Crude	16 400	14 330	15 062	...	...
Calcined	508	601	582	...	...
El Salvador					
Crude	8 293	8 201	16 224	...	...
Calcined	132	184	284	...	...
Mexico					
Crude	15 028	12 721	9 845	17 973	...
Calcined	7 849	9 549	8 276	6 886	...
Panama	9 850	20 708	16 014	...	...
USA					
Crude	4 942 000	5 653 000	6 417 000	7 537 000	7 052 000
Ground & calcined	2 000	20 000	4 000	3 000	2 000
Brazil	625	68	12	960	628
Uruguay					
Crude & ground	21 616	29 314	24 269	2 514	30 781
Venezuela	589	568	19 989	8 996	...
Hong Kong	27 542	25 657	52 823	62 120	132 726
Indonesia	47 556	79 753	109 653	157 757	287 554
Iran (a)	1 546	1 275	...	...	...
Israel (c)	29	23	96	186	...
Japan					
Crude	14 507	35 029	30 181	15 148	29 733
Calcined	127	365	230	187	381
Jordan	690	6 292	1 185	1 992	1 337
Korea, Republic of	865	3 416	5 429	...	...
Kuwait	15 789	16 859	30 331	81 603	...
Malaysia					
Crude & calcined	51 049	58 645	55 162	...	...
Philippines					
Crude	24 149	64 328	81 462	82 935	57 255
Calcined	4 093	5 449	4 659	5 279	6 019
Singapore					
Crude & calcined	46 120	69 988	53 708	71 003	75 268
Sri Lanka	...	818	10 413	374	...
Taiwan					
Crude	15 333	55 774	24 169	24 522	39 673
Calcined	6 718	1 713	2 104	2 178	3 079
Thailand					
Crude & calcined	217	316	416	294	...

Imports of Gypsum

Country	1975	1976	1977	1978	1979
Australia	1 001	1 183	1 174	2 043	...
Fiji	2 490	281	211	...	...
New Zealand (b)					
Crude	168 574	129 579	110 421	140 037	98 485
Calcined	1 096	638	690	573	484

Note: In this table the term 'crude' as used here may include some anhydrite

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Iodine

Production of Iodine

kilograms

Country	1975	1976	1977	1978	1979
Soviet Union	* 2 000 000	* 2 300 000	* 2 300 000	* 2 300 000	* 2 300 000
USA	...	...	* 600 000	* 1 000 000	* 1 000 000
Chile	1 961 600	1 423 500	1 856 300	1 922 000	2 409 600
China	...	* 360 000	* 360 000	* 450 000	* 450 000
Indonesia	33 077	27 000	20 500	7 000	9 000
Japan	6 814 319	7 000 000	6 100 000	6 000 000	6 300 000
World total	11 200 000	11 100 000	11 200 000	11 700 000	12 500 000

Iodine

kilograms

Exports of Iodine

Country	1975	1976	1977	1978	1979
United Kingdom	60 834	51 589	124 111	123 089	118 729
Belgium-Luxembourg	9 300	11 600	15 500	7 700	4 100
Denmark	1 800	2 100	0	0	...
France	61 000	9 000	31 000	97 000	131 000
Germany, Federal Republic of	27 700	35 900	13 500	31 300	45 300
Italy	75 300	363	—	28 235	23 800
Netherlands (a)	4 000	16 000	11 000	4 000	18 000
Portugal	100	300	200	100	...
Spain	602	1 000	1 100	1 601	1 000
Chile (c)	...	* 1 200 000	* 1 800 000	* 2 000 000	* 2 000 000
Indonesia	9 000	9 000	16 500	—	14 700
Japan	5 115 761	(b) 5 517 020	(b) 5 484 493	(b) 6 020 166	(b) 5 524 215

(a) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(b) Includes fluorine and bromine but is thought to be mainly iodine

(c) IGS estimates, based on known imports into certain countries

Iodine

Imports of Iodine

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom	862 029	949 313	1 095 320	1 310 066	1 359 074
Belgium-Luxembourg	21 500	137 400	139 500	132 400	102 200
Denmark	1 200	2 600	500	700	...
France	517 000	593 000	745 000	998 000	1 156 000
Germany, Federal Republic of	864 600	813 600	703 900	791 400	870 700
Italy	130 100	142 087	236 300	241 924	252 000
Netherlands (a)	118 000	57 000	105 000	113 000	126 000
Greece	3 000	1 000	1 819	2 625	2 000
Hungary	...	86 837	55 349	79 500	40 400
Portugal	17 200	12 500	16 900	46 100	...
Spain	32 035	84 158	96 078	105 111	146 034
Turkey	3 306	6 943	5 225	51 510	...
Yugoslavia	49 968	38 141	41 026	27 923	70 773
Algeria	1 131	79	46	1 442	...
Ethiopia	...	...	7 292	50 500	...
Morocco	492	150 648	357	974	372
Canada	167 240	128 094	160 889	175 000	260 000
Mexico	111 171	139 821	...	...	...
USA	2 408 000	2 951 000	3 168 000	3 139 000	2 823 000
Argentina	57 429	108 245	9 441	...	...
Brazil	56 958	127 017	82 466	165 571	130 409
Peru	3 003	3 085	2 687	...	...
Uruguay	...	600	900	700	1 400
Venezuela	6 506	11 696	8 565	11 469	...
India (b)	150 292	212 960	170 160	288 986	...
Indonesia	10 831	6 548	7 492	9 282	7 617
Korea, Republic of	4 655	4 047	7 855	...	...
Taiwan	2 603	3 554	5 064	6 191	7 169
Thailand	896	603	2 478	1 488	...

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Years ended 31 March following that stated

Production of Iron Ore

thousand tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	4 490	4 582	3 745	4 239	4 269
Belgium	93	63	47	43	—
France	49 647	45 181	36 630	33 454	31 627
Germany, Federal Republic of (a)	3 288	2 256	2 493	1 601	1 657
Italy	632	514	478	353	219
Luxembourg	2 315	2 079	1 548	835	630
Albania (h)	* 650	* 760	* 760	* 760	* 800
Austria	3 833	3 784	3 449	2 788	3 200
Bulgaria	2 337	2 316	2 270	2 453	2 103
Czechoslovakia	1 773	1 904	1 994	2 023	2 012
Finland	348	602	761	712	774
German Democratic Republic	59	60	72	80	70
Hungary	642	602	525	534	532
Norway	4 109	3 972	3 635	3 773	4 249
Poland	1 192	674	659	529	249
Portugal (f)	56	49	53	54	* 55
Romania	3 065	2 835	2 467	2 511	2 523
Soviet Union	232 803	239 109	239 716	244 231	241 597
Spain	7 641	7 050	7 375	8 580	* 5 300
Sweden	30 867	29 861	24 839	21 063	* 26 600
Turkey	2 359	3 602	3 470	4 198	* 4 000
Yugoslavia	5 239	4 260	4 451	4 564	4 617
Algeria	3 188	2 789	3 183	3 050	* 3 050
Angola	5 604	* 5 500	* 5 500	...	...
Egypt	1 087	1 242	1 409	1 456	1 435
Liberia	18 400	20 783	17 384	20 805	19 900
Mauritania	8 677	9 420	7 467	6 400	9 300
Morocco	554	343	407	63	—
Sierra Leone (b)	1 339	—	—	—	—
South Africa (c)	12 298	15 663	26 481	24 206	31 565
Swaziland	2 240	1 936	1 441	1 266	494
Tunisia	616	512	344	339	394
Zimbabwe	1 246	1 352	1 176	1 123	1 201
Canada (g)	44 893	55 416	53 621	42 931	60 185
Mexico	5 054	5 466	5 381	5 334	5 900
USA	80 132	81 277	56 645	82 892	86 489
Argentina	286	506	1 030	* 1 000	* 1 200
Brazil	89 000	92 611	80 936	84 372	91 700
Chile	11 007	10 055	7 891	9 666	11 068
Colombia	537	498	460	454	* 350
Peru	7 753	4 776	6 185	4 923	5 444
Venezuela	24 772	18 684	13 690	13 520	14 900
China	* 65 000	* 65 000	* 60 000	* 70 000	* 75 000
Hong Kong	167	37	—	—	—
India	41 794	43 868	42 598	38 838	39 534
Indonesia (d)	353	292	312	218	* 200
Iran (i)	1 022	* 1 100	* 1 100	* 1 500	* 600
Japan (d)	682	745	686	594	456
Korea, Dem. P.R. of	* 9 400	* 9 500	* 9 500	* 10 000	* 10 000
Korea, Republic of	644	755	791	693	639
Malaysia	348	308	330	320	351
Philippines	1 352	571	—	2	* 3
Thailand	32	25	63	88	* 100

Iron Ore

Production of Iron Ore

thousand tonnes

Country	1975	1976	1977	1978	1979
Australia	97 651	93 255	95 923	83 134	* 89 000
New Zealand	2 297	2 473	2 968	3 946	3 800
World total (e)	897 000	903 000	846 000	858 000	907 000

(a) Marketable production

(b) Exports

(c) Including by-product magnetite

(d) Including iron sand

(e) Iron ore also produced in other countries including Cuba, Lebanon and Vietnam

(f) Including manganiferous iron ore

(g) Including shipments of by-product iron ore

(h) Nickeliferous iron ore

(i) Years ended 20 March following that stated

Exports of Iron Ore

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	249	383	767	384	898
Belgium-Luxembourg					
Iron ore	70 731	26 710	148 185	83 852	3 367
Burnt pyrites	156 033	178 193	169 979	153 437	154 153
Denmark					
Iron ore	12 656	8 442	4 764	10 323	...
Burnt pyrites	—	—	—	608	...
France					
Iron ore	15 990 720	15 849 360	12 122 375	11 370 828	10 219 867
Burnt pyrites	12 664	4 509	4 700	52	—
Germany, Federal Republic of					
Iron ore	4 551	3 836	3 292	7 176	3 438
Burnt pyrites	139 198	106 754	244 788	184 218	236 795
Irish Republic					
Iron ore	27 645	27 776	31 092	37 352	31 160
Italy					
Iron ore	12 055	2	4 761	10 703	288
Burnt pyrites	223 723	142 878	125 993	67 216	65 678
Netherlands (b)	95 949	34 613	147 676	11 825	119 566
Austria	1 131	1 710	334	85	2
Finland	862	2 811	1 165	13 302	10
Greece					
Burnt pyrites	19 804	18 575	11 555	24 754	...
Norway					
Iron ore	3 267 338	2 729 241	2 695 573	3 074 126	3 408 646
Burnt pyrites	113 194	137 842	43 601	48 047	27 684
Portugal					
Burnt pyrites	37 681	106 254	64 555	10 500	14 000
Soviet Union	43 626 000	43 126 000	40 946 000	40 605 000	39 012 000
Spain					
Iron ore	1 959 610	2 187 541	1 466 371	2 024 815	1 994 544
Burnt pyrites	530 825	627 882	461 199	261 987	272 339
Sweden					
Iron ore	20 332 000	22 030 000	18 913 000	22 204 000	26 246 000
Burnt pyrites	430 000	388 000	330 000	355 000	316 000
Switzerland (b)	40	39	224	41	54
Yugoslavia					
Burnt pyrites	5 998	25 423	27 674	33 833	48 302
Algeria					
Iron ore	1 386 003	1 733 781	1 433 577	1 527 968	...
Burnt pyrites	236 012	42 870	—	20 000	...
Angola	* 2 500 000	...	...	...	...
Canary Islands					
Burnt pyrites	49 500	124 860	69 895	57 970	57 180
Liberia	18 400 778	20 533 153	17 663 184	20 804 586	...
Mauritania	8 677 064	9 660 808	8 423 415	...	...
Morocco					
Burnt pyrites	79 745	238 423	429 342	39 935	99 686
Sierra Leone	1 453 557	...	...	...	...
South Africa (d)	* 2 743 000	* 3 535 000	* 10 560 000	* 13 658 000	* 15 646 000
Swaziland	1 964 472	1 744 464	1 384 315	1 046 383	956 726
Tunisia	295 612	112 632	55 023	24 981	...
Canada	36 060 194	44 684 874	45 060 397	31 928 927	48 849 015
Mexico	2 674	11 497	802	1 015	...
USA (b)	2 578 374	2 960 061	2 177 714	4 281 635	5 347 856
Bolivia (c)	19 740	...	4 328	35 313	2 629
Brazil	72 521 995	67 085 514	58 540 946	66 371 318	75 587 907
Chile	9 401 000	8 942 000	7 570 000	6 520 000	6 980 000
Peru	5 331 965	4 302 644	6 103 347	...	...
Venezuela	19 405 000	15 672 000	11 900 000	12 900 000	12 900 000

Iron Ore

Exports of Iron Ore

tonnes

Country	1975	1976	1977	1978	1979
Hong Kong	164 562	55 547	—	—	—
India	22 796 000	23 403 000	23 191 000	19 778 000	...
Korea, Dem. P.R. of	* 202 700	...	...	...	...
Korea, Republic of	61 639	4 076	1 360	...	...
Malaysia	94 008	8 936	141 488	...	...
Philippines					
Iron ore	1 305 085	835 806	1 982 596	3 279 988	4 133 234
Burnt pyrites	16 751	34 090	56 429	54 992	33 079
Singapore	...	18	7	40	—
Australia	80 363 000	81 231 000	78 908 000	75 101 000	78 332 000
New Zealand (a)	2 389 716	2 236 308	2 222 860	3 079 107	...

(a) Years ended 30 June of that stated

(b) Including burnt pyrites

(c) Fe content of concentrates

(d) IGS estimates, based on known imports into certain countries

Imports of Iron Ore

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Iron ore	15 770 712	18 578 558	15 542 322	15 451 080	17 841 304
Burnt pyrites	304 499	225 460	211 658	226 684	221 166
Belgium-Luxembourg					
Iron ore	25 520 025	26 978 608	21 522 153	24 242 568	26 144 207
Burnt pyrites	213 634	233 447	250 525	215 053	183 669
Denmark (a)	31 126	40 735	36 670	41 168	...
France					
Iron ore	13 169 862	13 888 931	15 431 925	14 603 972	17 345 338
Burnt pyrites	107 092	80 312	78 187	92 272	87 452
Germany, Federal Republic of					
Iron ore	44 321 709	46 775 277	39 748 814	42 133 179	51 703 352
Burnt pyrites	842 622	905 680	821 780	532 633	625 783
Irish Republic	101	1	60	—	77
Italy (a)	15 649 542	17 304 469	15 281 313	16 296 692	17 320 611
Netherlands (a)	7 372 230	6 532 791	6 921 394	5 577 835	7 431 455
Austria					
Iron ore	2 577 732	2 876 479	2 610 912	2 618 559	3 963 480
Burnt pyrites	181 487	119 143	113 074	54 424	44 854
Bulgaria	1 918 000	1 638 000	1 672 000	1 642 000	...
Czechoslovakia	14 802 000	15 400 000	15 970 000	15 600 000	12 459 000
Finland	1 206 359	972 529	1 161 788	1 530 234	1 790 979
German Democratic Republic (b)	2 118 400	2 053 300	2 267 000	2 046 000	...
Greece	786 015	370 309	645 893	235 127	391 000
Hungary	4 261 000	4 234 000	4 280 590	4 200 053	4 044 624
Norway	37 766	163 512	119 993	121 106	312 434
Poland	15 423 000	15 829 000	16 943 000	17 198 000	18 866 000
Portugal	386 028	534 395	447 360	389 350	619 687
Romania	10 878 700	11 740 000	12 402 200	13 843 000	15 065 000
Spain	(a) 6 205 514	6 149 472	4 898 661	4 627 766	5 194 919
Sweden	319 000	189 000	120 000	121 000	33 000
Switzerland (a)	44 640	31 835	31 406	59 552	58 723
Turkey	233 922	412 790	666 719	172 816	733 000
Yugoslavia	597 924	481 892	515 443	547 006	1 059 699
Kenya	—	10 500	7 644	35 602	—
Libya	30	9 000	2 844	...	...
Nigeria	16	1 944	...	...	...
South Africa	8 244	2	—	—	—
Tanzania	1 500	1 050	2 336	817	...
Canada	4 844 417	3 020 131	2 505 204	4 685 843	5 912 550
Mexico	34 144	159	7	148 802	...
USA (a)	47 492 262	45 101 857	38 512 962	34 155 820	34 318 077
Argentina	1 520 153	1 744 805	2 377 249	...	...
Abu Dhabi	658	8 500	—	88 959	122 552
India	—	181	1 049	464	...
Japan					
Iron ore (c)	131 748 610	133 749 526	132 596 591	114 688 039	130 274 295
Burnt pyrites	4 173	8 924	17 556	2 891	1 495
Korea, Republic of	1 493 705	1 187 669	2 360 179	...	...
Philippines	...	...	2 406 905	3 405 249	3 363 322
Singapore	23 712	77	143 934	16 459	6 781
Taiwan					
Iron ore	143 342	151 143	1 176 079	2 488 737	2 648 963
Burnt pyrites	17 590	29 479	77 560	74 209	50 980
Australia	16 759	50 716	27 210	30 731	*28 000

(a) Including burnt pyrites

(b) Fe content of concentrates

(c) Including manganese iron ore

Production of Pig-Iron and Blast-Furnace Ferro-alloys

thousand tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	12 131	13 835	12 232	11 434	12 898
Belgium	9 072	9 864	(a) 8 911	(a) 10 128	(a) 10 776
France (a)	17 921	19 023	18 257	18 497	19 415
Germany, Federal Republic of	30 068	31 849	28 959	30 218	35 166
Italy	11 411	11 696	11 473	11 403	11 300
Luxembourg	3 889	3 756	3 568	3 721	3 801
Netherlands	3 970	4 265	3 922	4 613	4 814
Austria (a)	3 056	3 273	2 969	3 077	3 702
Bulgaria (a)	1 509	1 558	1 614	1 493	1 451
Czechoslovakia	9 281	9 475	9 715	9 944	9 529
Finland	1 408	1 370	1 797	1 903	2 177
German Democratic Republic	2 456	2 528	2 628	2 560	* 2 500
Hungary	2 219	2 221	2 286	2 330	2 369
Norway (a)	638	656	512	554	651
Poland	8 206	8 320	10 079	11 668	11 527
Portugal	327	344	357	353	366
Romania (a)	6 602	7 415	7 784	8 155	8 879
Soviet Union	102 968	105 384	107 368	110 702	108 998
Spain (a)	6 842	6 626	6 705	6 249	6 500
Sweden	3 309	(a) 2 952	(a) 2 330	2 363	2 900
Switzerland (a)	35	23	27	35	—
Turkey	1 197	1 518	1 360	1 569	1 190
Yugoslavia (a)	2 000	1 918	1 938	2 081	2 360
Egypt (a)	420	569	* 250	* 300	* 300
South Africa (a)	5 177	5 776	6 094	5 850	* 7 000
Zimbabwe	799	861	629	690	650
Canada (a)	9 150	9 826	9 661	10 338	10 906
Mexico (a)	2 962	3 528	4 329	5 136	4 554
USA (a)	72 322	78 787	73 930	79 551	78 902
Argentina (a)	1 045	1 367	1 101	1 434	* 1 500
Brazil (a)	7 053	8 170	9 380	9 968	* 10 500
Chile (a)	416	403	427	539	611
Colombia (a)	293	286	223	297	245
Peru (a)	302	223	244	246	263
Venezuela (a)	535	422	497	689	1 374
China (a)	* 32 000	* 30 000	25 050	34 790	* 36 700
India (a)	8 433	9 727	9 796	9 432	8 737
Japan (a)	86 876	86 576	85 886	78 588	83 827
Korea, Dem. P.R. of	* 2 900	* 3 000	* 3 500	* 4 000	* 4 000
Korea, Republic of (a)	1 186	1 937	2 425	2 741	5 063
Taiwan (a)	93	191	275	316	325
Thailand (a)	13	18	20	21	* 30
Australia (a)	7 475	7 417	6 753	7 337	7 800
World total	480 000	499 000	487 000	507 000	527 000

(a) Pig-iron only

Production of Steel Ingots and Castings

thousand tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	20 098	22 274	20 411	20 311	21 464
Belgium	11 592	12 144	11 268	12 604	13 553
Denmark	559	722	686	863	804
France	21 530	23 221	22 094	22 841	23 360
Germany, Federal Republic of	40 415	42 415	38 985	41 253	46 090
Irish Republic	82	58	58	66	* 80
Italy	21 836	23 447	23 334	24 283	24 300
Luxembourg	4 624	4 566	4 329	4 790	4 950
Netherlands	4 823	5 189	4 927	5 590	5 806
Austria	4 068	4 477	4 093	4 335	4 917
Bulgaria	2 265	2 460	2 589	2 469	2 482
Czechoslovakia	14 323	14 693	15 054	15 294	14 817
Finland	1 618	1 644	2 196	2 333	2 463
German Democratic Republic	6 472	6 732	6 849	6 976	7 100
Greece	1 100	700	760	900	1 000
Hungary	3 730	3 712	3 782	3 877	3 907
Norway	907	898	711	813	921
Poland	15 004	15 639	17 841	19 251	19 218
Portugal	417	464	504	614	663
Romania	9 549	10 733	11 457	11 779	12 909
Soviet Union	141 325	144 805	146 655	151 436	149 000
Spain	11 137	11 002	11 670	11 158	12 250
Sweden	5 614	5 178	3 979	4 325	4 730
Switzerland	420	545	656	784	840
Turkey	1 464	1 405	1 397	1 628	* 2 400
Yugoslavia	2 916	2 751	3 184	3 452	3 536
Algeria	221	356	400	400	* 360
Egypt	348	457	* 600	* 600	* 635
South Africa	6 580	6 926	7 378	7 800	8 816
Tunisia	129	103	157	160	* 160
Zimbabwe	750	733	734	778	740
Canada	13 025	13 290	13 631	14 898	16 078
Cuba	298	250	330	324	328
Mexico	5 272	5 298	5 601	6 775	* 7 000
USA	105 816	116 120	113 700	124 312	123 686
Argentina	2 070	2 431	2 537	2 564	3 000
Brazil	8 308	9 169	11 164	12 106	13 893
Chile	457	448	509	574	642
Colombia	266	252	209	265	* 200
Peru	432	349	379	377	426
Uruguay	16	15	17	9	15
Venezuela	1 075	937	855	860	1 506
Bangladesh (b)	76	90	108	117	126
China	* 29 000	* 27 000	23 740	31 780	* 34 430
India	7 829	9 403	9 852	9 917	9 931
Indonesia	100	139	145	150	* 180
Iran	551	549	544	* 780	* 700
Israel	* 60	* 80	* 100	* 100	* 100
Japan	102 314	107 399	102 405	102 103	111 737
Jordan	* 182	* 98	* 100	* 100	* 100
Korea, Dem. P.R. of	* 2 900	* 3 000	* 3 500	* 4 000	* 4 000
Korea, Republic of	2 010	2 698	2 737	3 138	5 200
Malaysia	195	200	* 200	* 200	* 230
Philippines	* 280	393	364	* 300	* 400
Singapore	187	203	206	280	297
Syria	* 135	* 80	* 115	* 120	* 90
Taiwan	571	634	910	1 269	1 570
Thailand	258	285	300	331	* 290
Australia (a)	7 843	7 774	7 313	7 589	8 126
New Zealand	185	214	215	220	229
World total	648 000	679 000	671 000	709 000	739 000

Note: The figures in this table refer to crude steel and cast semi-manufactures are not included

(a) Includes recovery from scrap

(b) Years ended 30 June of that stated

Production of Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ferro-manganese	85 000	122 000	97 000	69 000	137 000
France					
Blast furnace ferro-alloys – Spiegeleisen & ferro- manganese	427 000	367 000	373 000	397 000	449 000
Electric furnace & alumino- thermic ferro-alloys – Ferro-chrome & ferro-silico- chrome	56 485	111 975	105 716	96 980	97 319
Ferro-silicon (50% Si)	242 303	236 531	241 048	192 829	285 487
Silico-spiegeleisen & ferro- silico-manganese	51 251	36 164	42 205	18 863	12 890
Ferro-titanium, ferro- tungsten, ferro- molybdenum, ferro- vanadium (a)	7 092	7 222	6 358	4 216	7 786
Other ferro-alloys	77 880	93 097	92 883	123 781	138 245
Germany, Federal Republic of					
Spiegeleisen & ferro- manganese	210 000	220 000	175 000	209 000	233 000
Electric furnace ferro- alloys	257 000	239 000	210 000	139 000	175 000
Italy					
Spiegeleisen	3 208	2 635	5 930	2 592	* 2 700
Silico-spiegeleisen	1 176	—	—	—	...
Silicon-pig iron (10-12% Si)	1 629	2 246	2 861	1 026	...
Ferro-chrome	44 511	45 264	39 753	36 877	* 42 600
Ferro-silico-chrome	85	—	—	230	...
Ferro-silico-magnesium	2 089	2 063	4 320	2 381	...
Ferro-manganese	71 466	78 459	75 160	89 929	67 100
Ferro-silico-manganese	36 289	41 386	40 050	42 615	54 400
Ferro-molybdenum	2 804	1 931	2 043	1 756	...
Ferro-phosphorus	529	416	651	631	...
Ferro-silicon	70 970	78 934	76 511	67 700	* 81 000
Ferro-titanium & ferro- silico-titanium	1 025	1 126	1 517	2 188	...
Ferro-vanadium	339	258	237	526	...
Calcium-silicide	4 003	2 473	5 723	3 177	...
Silicon metal	14 100	17 703	* 16 000	* 14 500	* 15 400
Austria					
Electric furnace ferro- alloys	8 000	8 000	7 000	6 000	6 000
Czechoslovakia					
Blast furnace ferro-alloys	28 000	2 000	—	—	—
Electric furnace ferro- alloys	132 000	136 000	175 000	177 000	175 000
Greece					
Ferro-nickel	54 915	60 918	35 593	55 137	54 400
Hungary					
Ferro-silicon	7 329	6 925	6 846	7 636	7 726
Norway					
Ferro-chrome & ferro- silico-chrome	28 303	32 351	22 630	15 763	11 800
Ferro-manganese	338 801	375 196	283 800	310 293	338 400
Ferro-silico-manganese	162 860	168 476	126 694	133 647	179 600
Ferro-silicon	294 780	278 027	223 422	266 190	349 260
Other ferro-alloys	30 345	30 506	30 899	30 264	7 300
Silicon metal	...	* 57 000	* 51 000	* 64 000	* 70 000
Portugal					
Electric furnace ferro- alloys	8 866	11 951	16 452	14 341	147 738

Production of Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Soviet Union					
Blast furnace ferro-alloys –					
Spiegeleisen	104 000	* 102 000	* 100 000	* 100 000	* 100 000
Ferro-manganese	878 000	* 850 000	* 850 000	* 880 000	* 870 000
Other ferro-alloys	27 000	* 28 000	* 25 000	* 30 000	* 30 000
Electric furnace ferro-alloys –					
Ferro-chrome	* 206 000	* 210 000	* 210 000	* 220 000	* 230 000
Ferro-silico-chrome	* 4 000	* 5 000	* 5 000	* 5 000	* 5 000
Ferro-manganese	* 80 000	* 90 000	* 95 000	* 100 000	* 120 000
Ferro-silico-manganese	* 25 000	* 25 000	* 30 000	* 30 000	* 30 000
Ferro-silicon	* 590 000	* 600 000	* 600 000	* 620 000	* 630 000
Other ferro-alloys	* 165 000	* 175 000	* 180 000	* 185 000	* 185 000
Silicon metal	...	* 45 000	* 47 000	* 47 000	* 57 000
Spain					
Ferro-chrome	15 718	20 039	18 820	13 800	* 20 000
Ferro-manganese	126 613	133 737	141 473	138 340	145 100
Ferro-silico-manganese	86 944	90 610	67 050	111 100	* 109 800
Ferro-silicon	55 442	56 604	68 316	101 990	119 700
Sweden					
Ferro-chrome	96 146	120 005	134 452	166 238	* 188 700
Ferro-silico-chrome	44 743	36 998	37 386	25 255	* 20 000
Ferro-silico-manganese	8 776	7 549	—	—	—
Ferro-molybdenum	1 659	1 830	1 003	1 131	...
Ferro-silicon	52 102	37 498	22 383	652	—
Ferro-tungsten	722	422	487	440	...
Ferro-vanadium	407	575	423	616	...
Turkey					
Ferro-chrome	* 9 500	* 25 000	* 35 000	* 40 000	* 50 000
Yugoslavia					
Ferro-alloys	195 000	200 000	192 000	220 000	250 000
Egypt					
Ferro-silicon	4 518	4 443	4 557	* 4 600	* 6 000
South Africa					
Ferro-chrome	299 000	* 350 000	* 380 000	* 450 000	* 600 000
Ferro-silico-chrome	21 000	* 22 000	* 28 900	* 30 800	* 41 700
Ferro-manganese	337 000	* 350 000	* 400 000	* 480 000	* 730 000
Ferro-silico-manganese	15 000	* 22 000	* 25 000	* 30 000	* 45 000
Ferro-silicon	76 000	* 79 000	* 100 000	* 120 000	* 140 000
Other ferro-alloys	200	* 300	* 300	* 300	* 900
Silicon metal	...	* 23 000	* 28 000	* 33 000	* 35 000
Zimbabwe					
Ferro-chrome	196 664	182 303	149 786	139 046	175 306
Ferro-manganese	2 313	2 364	2 211	2 211	2 164
Ferro-silicon	34 449	29 943	17 044	—	25 116
Canada					
Ferro-manganese	* 51 000	* 80 000	* 60 000	* 70 000	* 50 000
Ferro-silicon	57 580	85 983	99 880	130 000	104 000
Other ferro-alloys	* 52 000	* 54 000	* 12 000	* 23 000	* 9 000
Dominican Republic					
Ferro-nickel (d)	26 900	24 400	24 905	14 302	* 24 500
Mexico					
Ferro-chrome	—	3 246	2 739	3 995	4 000
Ferro-manganese	64 598	54 418	99 304	107 276	120 000
Ferro-silico-manganese	15 720	17 580	26 911	33 735	35 000
Ferro-silicon	17 824	17 957	22 888	24 606	25 000
Other ferro-alloys	343	241	156	1 120	1 000
USA					
Ferro-chrome	178 557	195 103	196 418	176 848	243 773
Ferro-silico-chrome	47 166	49 153	48 328	21 509	23 494
Ferro-manganese	522 365	437 864	303 121	247 235	287 670
Ferro-silico-manganese	129 965	116 952	108 638	128 756	149 730
Ferro-niobium	558	1 093	1 015	1 093	679
Ferro-phosphorus	93 346	100 610	80 417	81 714	79 217
Ferro-silicon	717 456	780 904	811 717	743 618	777 547
Other ferro-alloys (b)	58 237	51 242	41 758	110 612	138 912

Production of Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Argentina					
Ferro-manganese	18 892	23 309	34 644	26 291	31 000
Ferro-silicon	13 871	18 947	15 575	12 038	16 000
Other ferro-alloys	5 082	6 169	6 381	10 406	13 000
Brazil					
Ferro-chrome	52 986	59 730	65 969	62 170	84 000
Ferro-silico-chrome	2 304	5 880	4 121	4 698	7 000
Ferro-manganese	86 850	98 738	128 922	117 843	133 000
Ferro-silico-manganese	38 828	63 843	75 108	106 249	128 000
Ferro-molybdenum	612	863	1 117	1 690	(e) ...
Ferro-nickel	9 646	9 971	10 860	10 976	12 000
Ferro-silicon	54 276	45 252	60 290	72 842	67 000
Ferro-silico-calcium-magnesium	5 526	7 531	11 916	15 758	} 38 000
Ferro-niobium	3 996	10 010	6 809	10 251	
Other ferro-alloys	914	6 240	6 079	7 070	
Chile					
Ferro-manganese	6 082	8 301	5 000	* 5 000	* 4 000
Ferro-silico-manganese	2 807	1 550	528	* 500	* 1 000
Ferro-silicon	3 519	4 480	2 993	* 3 000	* 3 000
Other ferro-alloys	934	685	* 500	* 1 000	* 1 000
China					
Ferro-chrome	* 60 000	* 60 000	* 70 000	* 90 000	* 90 000
Ferro-manganese	* 190 000	* 190 000	* 230 000	* 310 000	* 340 000
Ferro-silicon	* 100 000	* 100 000	* 110 000	* 150 000	* 160 000
Other ferro-alloys	* 27 000	* 27 000	* 36 000	* 40 000	* 50 000
India					
Ferro-chrome	10 282	17 005	18 068	21 545	22 168
Ferro-silico-chrome	3 200	5 100	4 155	3 892	3 780
Ferro-manganese	142 549	175 760	193 908	219 993	188 683
Ferro-silico-manganese	...	4 689	10 240	2 891	2 114
Ferro-silicon	40 928	53 947	44 675	52 274	51 169
Other ferro-alloys	339	304	592	741	730
Japan					
Ferro-calcium-silicon	5 112	3 992	5 634	...	...
Ferro-chrome	486 067	463 541	398 782	273 970	364 688
Ferro-silico-chrome	25 199	11 046	11 411	9 072	19 960
Ferro-manganese	649 834	632 160	527 418	455 407	603 278
Ferro-silico-manganese	435 107	373 196	333 692	303 000	299 371
Ferro-molybdenum	3 928	4 501	3 705	...	...
Ferro-nickel	200 569	199 581	224 339	198 673	271 248
Ferro-silicon	327 478	313 077	291 446	270 341	319 329
Ferro-tungsten	494	3 447	404	...	...
Ferro-vanadium	3 165	3 940	2 546	...	...
Other ferro-alloys	2 435	3 536	8 576	...	...
Korea, Dem. P.R. of					
Ferro-alloys	* 100 000	* 100 000	* 100 000	* 110 000	* 110 000
Korea, Republic of					
Ferro-manganese	...	* 29 000	* 36 300	* 47 200	* 70 800
Ferro-silicon	21 300	34 733	26 826	30 800	39 900
Taiwan					
Ferro-silicon	23 177	23 342	24 672	29 785	37 500
Thailand					
Ferro-manganese	831	1 509	706	747	1 814
Ferro-silicon	393	1 159	—	1 635	2 722

Production of Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Australia (c)					
Ferro-chrome	1 611	—	—	...	...
Ferro-manganese	38 784	49 927	71 012	71 700	* 72 000
Ferro-silico-manganese (60% Mn)	11 297	14 651	23 430	24 500	* 24 500
Ferro-silicon	247	6 954	18 667	19 100	* 19 000
New Caledonia					
Ferro-nickel (d)	52 802	38 169	28 283	19 889	30 373

(a) Ti, W, Mo, V content

(b) Includes ferro-boron and other complex boron additive alloys, ferro-nickel, ferro-molybdenum, ferro-tungsten, ferro-vanadium, spiegeleisen, ferro-zirconium and other miscellaneous alloys

(c) Years ended 30 November of that stated

(d) Ni content

(e) Included with 'other ferro-alloys'

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Pig-iron	18 497	60 892	47 204	33 753	22 535
Sponge & powder	1 558	2 123	1 480	515	896
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	2 488	6 029	5 194	4 357	4 805
Ferro-chrome	2 098	588	1 919	1 593	1 305
Ferro-silico-chrome	150	987	75	52	705
Ferro-manganese	1 176	617	684	1 959	6 964
Ferro-silico-manganese	408	105	—	169	763
Ferro-molybdenum	1 091	1 811	1 701	1 507	1 958
Ferro-nickel	52	39	—	—	—
Ferro-niobium & ferro- niobium-tantalum	609	857	352	395	416
Ferro-silicon	1 199	1 224	1 480	1 948	1 782
Ferro-titanium	2 591	3 675	2 592	3 844	3 661
Ferro-tungsten	2 488	3 503	3 172	3 732	3 306
Ferro-vanadium	50	144	99	137	190
Other ferro-alloys	1 859	1 937	1 959	1 497	1 548
Ingots, blooms, billets	255 582	257 619	415 131	332 569	321 509
Scrap (a)	915 552	597 807	937 985	1 557 902	1 334 852
Belgium-Luxembourg					
Pig-iron	11 957	33 503	56 473	35 675	22 555
Spiegeleisen	859	351	405	235	61
Sponge & powder	339	348	258	258	585
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	36	71	146	72	130
Ferro-chrome	4 189	9 376	14 665	9 559	1 572
Ferro-manganese	43 417	70 377	49 539	30 450	44 152
Ferro-silicon	797	1 356	5 094	4 223	4 187
Ferro-titanium & ferro- silico-titanium	1 643	1 664	1 212	1 894	1 637
Ferro-tungsten & ferro- silico-tungsten	108	495	90	176	18
Ferro-silico-manganese, ferro- molybdenum & ferro-vanadium	8 153	12 241	15 215	24 451	35 494
Other ferro-alloys	411	401	1 022	1 286	2 569
Ingots, blooms, billets	1 393 924	1 071 544	644 272	642 768	850 298
Scrap	531 778	527 292	501 333	537 558	550 135
Denmark					
Ingots, blooms, billets	983	1 084	6 734	2 717	...
Scrap	90 698	115 673	57 006	81 429	...
France					
Pig-iron	220 992	226 780	192 285	127 570	360 260
Spiegeleisen	710	433	2 683	689	1 311
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	1 288	1 661	1 021	1 600	2 323
Ferro-chrome	12 681	22 526	8 256	9 834	7 812
Ferro-silico-chrome	3 017	6 264	4 369	2 564	2 594
Ferro-manganese	267 796	266 616	269 411	321 088	347 504
Ferro-silico-manganese	5 372	11 792	9 299	10 778	11 523
Ferro-molybdenum	392	1 178	837	372	498
Ferro-nickel	59 352	55 424	50 574	34 569	98 023
Ferro-silicon	47 709	84 797	78 631	78 704	92 671
Ferro-silico-magnesium	4 313	5 808	8 636	7 744	7 331
Ferro-silico-zirconium	1 256	2 141	3 194	3 592	4 137
Ferro-titanium & ferro- silico-titanium	1 433	1 486	1 258	1 608	2 019
Ferro-tungsten & ferro- silico-tungsten	410	859	662	1 046	330
Ferro-vanadium	356	553	112	513	497
Other ferro-alloys	22 893	22 550	23 922	26 991	25 120
Ingots, blooms, billets	615 306	435 725	339 266	265 339	292 670
Scrap	2 809 306	3 421 382	3 357 071	3 662 495	3 526 074

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Germany, Federal Republic of					
Pig-iron	742 937	821 077	704 029	736 119	948 489
Sponge & powder	15 711	50 718	15 987	51 941	31 638
Spiegeleisen	2 205	1 514	520	2 716	1 752
Ferro-chrome	30 826	65 495	36 426	31 419	27 655
Ferro-silico-chrome	1 300	5 124	1 629	1 623	3 583
Ferro-manganese	40 730	45 918	74 037	49 391	95 273
Ferro-silico-manganese	567	2 052	2 215	742	3 590
Ferro-molybdenum	426	1 540	1 328	375	481
Ferro-nickel	53	35	54	9	422
Ferro-silicon	15 936	16 612	23 244	25 818	31 553
Ferro-titanium & ferro-silico-titanium	143	148	232	277	702
Ferro-tungsten & ferro-silico-tungsten	103	137	133	216	201
Ferro-vanadium	1 207	1 595	1 373	1 511	1 462
Other ferro-alloys	9 426	13 003	12 905	11 057	13 479
Ingots, blooms, billets	987 554	1 048 794	981 046	1 174 858	1 334 228
Scrap	2 205 545	2 596 883	2 481 079	2 765 240	2 998 078
Irish Republic					
Scrap	7 528	8 207	7 910	54 100	40 991
Italy					
Pig-iron	694	103	644	5 457	6 947
Sponge & powder	1 158	2 053	2 035	2 035	1 525
Ferro-chrome & ferro-silico-chrome	13 301	18 523	11 632	8 455	27 038
Ferro-manganese	5 021	2 155	2 143	10 450	7 952
Ferro-silico-manganese	613	327	247	1 001	905
Ferro-molybdenum	852	376	954	760	732
Ferro-silicon	5 501	9 456	4 311	7 345	11 001
Ferro-silico-magnesium	671	1 081	2 075	1 162	1 633
Ferro-titanium	549	889	1 069	1 751	1 556
Ferro-vanadium	133	232	260	265	435
Other ferro-alloys	358	83	144	542	755
Ingots, blooms, billets	371 170	123 363	66 028	154 897	152 154
Scrap	5 231	23 936	10 882	6 683	13 204
Netherlands					
Pig-iron	7 381	756	139	1 876	22 962
Sponge & powder	41	68	20	41	107
Ferro-chrome (f)	1 479	7 770	9 523	10 402	1 916
Ferro-manganese (f)	0	2 339	2 606	1 326	449
Ferro-molybdenum (f)	49	184	131	60	172
Ferro-nickel (f)	57	63	23	4	129
Ferro-silicon (f)	3 349	3 724	3 236	1 000	4 400
Ferro-vanadium (f)	597	776	620	700	804
Other ferro-alloys (f)	27	106	293	442	537
Ingots, blooms, billets	664 989	669 512	500 088	589 780	727 913
Scrap	1 095 313	1 103 234	925 075	1 190 000	1 241 281
Austria					
Pig-iron	2 391	412	143	—	—
Ferro-alloys	8 505	9 130	9 383	9 280	10 088
Ingots & blooms	161 872	54 033	4 283	10 181	13 022
Scrap	50 482	43 806	7 530	7 344	13 904
Finland					
Pig-iron	95 563	85 205	68 633	...	32 513
Ferro-chrome & ferro-silico-chrome	30 997	32 745	26 199	39 332	31 409
Other ferro-alloys	—	3	811	3 469	326
Blooms & billets	236 938	232 963	214 306	190 809	163 265
Scrap	5 106	3 662	3 235	973	3 661
Greece					
Ferro-nickel	49 523	57 030	44 697	67 458	65 526
Hungary					
Pig-iron	99 398	136 050	116 093	47 262	15 477
Iceland					
Scrap	3 445	2 992	2 224	8 842	3 343
Malta					
Scrap	6 173	4 260	4 338	9 351	3 441

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Norway					
Pig-iron	100 857	96 613	88 185	106 518	140 198
Ferro-chrome	21 142	27 956	14 887	17 952	12 950
Ferro-silico-chrome	62	67	140	433	7 441
Ferro-manganese	256 639	327 222	244 041	266 733	293 874
Ferro-silicon	222 187	247 787	228 180	314 673	304 519
Ferro-silico-manganese	126 319	153 044	117 499	162 498	171 920
Ferro-vanadium	729	733	903	821	1 107
Other ferro-alloys	15 531	16 740	14 946	16 909	16 628
Ingots, blooms, billets	185 312	207 116	149 801	217 526	239 469
Scrap	19 515	17 826	14 124	36 146	38 025
Poland					
Pig-iron & ferro-alloys	4 996	46	—	—	—
Portugal					
Pig-iron	7 527	4 328	238	0	116
Ferro-manganese	35 668	44 438	45 094	63 778	66 331
Ferro-silico-manganese	101	—	4 533	26 804	...
Ferro-silicon	6 500	11 699	14 216	12 994	11 131
Ferro-tungsten	298	290	169	140	...
Other ferro-alloys	600	1 053	—	—	14 945
Scrap	1 710	2 808	4 166	9 716	4 833
Soviet Union					
Pig-iron	4 729 229	4 527 340	* 4 500 000	* 4 500 000	* 4 600 000
Ferro-chrome	44 601	48 777	* 420 000	* 420 000	* 420 000
Ferro-manganese	129 188	125 273			
Ferro-silicon	154 492	160 246			
Ferro-vanadium	1 427	1 658			
Scrap	1 138 660	1 836 591	2 189 347	1 678 578	1 987 827
Spain					
Pig-iron	906	827	56	64 411	81 973
Ferro-silico-aluminium, ferro-silico-mangano- aluminium & ferro-silico- alumino-calcium	102	234	361	—	—
Ferro-chrome	7 244	6 376	3 465	3 882	9 230
Ferro-manganese	17 215	39 532	29 444	47 242	53 481
Ferro-silico-manganese	13 365	15 952	5 427	28 770	40 613
Ferro-molybdenum	0	75	26	588	461
Ferro-silicon	4 625	16 483	17 126	39 760	67 632
Ferro-titanium & ferro- silico-titanium	21	18	0	16	14
Other ferro-alloys	73	651	1 019	1 387	2 396
Ingots, blooms, billets	12 506	48 801	22 562	36 155	221 472
Sweden					
Pig-iron	193 332	53 904	156 208	510 538	150 319
Sponge & powder	100 679	86 092	96 244	95 035	116 524
Ferro-chrome	27 627	47 722	86 080	152 742	137 982
Ferro-silico-chrome	3 428	6 830	4 677	10 503	3 603
Ferro-manganese	1 190	3 039	293	463	1 000
Ferro-silico-manganese	3 792	3 482	325	209	385
Ferro-molybdenum	689	1 217	1 581	872	1 239
Ferro-nickel	335	124	501	1 006	5
Ferro-silicon	29 300	20 051	15 350	663	258
Ferro-titanium	66	25	80	892	686
Ferro-tungsten	163	200	309	176	163
Ferro-vanadium	152	151	418	446	405
Other ferro-alloys	20	67	60	100	107
Ingots, blooms, billets	127 587	185 934	274 900	520 743	520 329
Scrap	10 820	8 624	74 652	78 832	17 366
Switzerland					
Pig-iron	2	—	191	338	229
Ferro-silicon	165	563	428	128	114
Other ferro-alloys	197	124	708	1 582	340
Ingots, blooms, billets	27 324	8 737	15 778	22 394	18 808
Scrap	117 217	70 689	61 938	88 080	100 690
Turkey					
Ferro-chrome	6 063	8 050	7 965	25 921	32 075

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Yugoslavia					
Pig-iron	107 110	50 148	73 971	22 330	62 155
Ferro-chrome	18 475	23 389	35 939	59 980	57 170
Ferro-manganese	4 091	4 625	20 460	29 585	20 767
Ferro-silico-manganese	9 193	10 278	10 305	19 970	20 685
Ferro-silicon	32 741	50 039	40 502	46 878	46 210
Other ferro-alloys	3	6	55	231	3 625
Ingots, blooms, billets	6 196	35 174	9 901	16 551	22 494
Scrap	1 007	19 641	42 399	76 407	48 302
Algeria					
Pig-iron	194 331	107 887	99 147	102 300	...
Scrap	70 801	113 905	74 246	82 474	...
Egypt					
Pig-iron & spiegeleisen	97 420	38 584	14 671	1 439	—
Ferro-alloys	2 000	1 000	—	—	—
Ivory Coast					
Scrap	25 028	17 576	19 806	19 031	21 714
Kenya					
Scrap	4 675	4 827	3 211	3 949	68
Morocco					
Scrap	29 122	48 954	18 648	44 774	88 559
Mozambique					
Scrap	8 908	8 487	...	...	...
Nigeria					
Scrap	27	336	...	...	...
Senegal					
Scrap	20 875	...	12 613	...	...
South Africa (g)					
Pig-iron	* 2 000	* 250	...	* 15 500	* 81 000
Ferro-chrome	* 277 000	* 419 000	* 400 000	* 580 000	* 715 700
Ferro-manganese	* 219 000	* 302 000	* 236 400	* 368 100	* 469 100
Ferro-silicon	* 32 000	* 31 500	* 28 100	* 26 000	* 32 700
Other ferro-alloys	* 12 000	* 6 000	* 5 600	* 13 400	* 14 700
Ingots, blooms, billets	* 43 000	* 23 000	* 155 400	* 82 700	* 34 400
Scrap	* 10 800	* 14 700	* 10 400	* 22 500	* 16 200
Sudan					
Scrap	1 959	5 179	4 500	—	...
Tanzania					
Scrap	110	387	...	...	...
Tunisia					
Pig-iron	751	—	—	—	...
Ingots, blooms, billets	2 164	—	—	20 400	...
Scrap	3 571	1 300	11	1 280	...
Canada					
Pig-iron	406 308	281 558	505 277	544 713	255 522
Sponge	34 448	103 618	51 929	57 401	138 333
Ferro-manganese	1 240	9 861	23 150	20 221	12 043
Ferro-silicon	29 317	34 257	45 512	60 198	40 733
Other ferro-alloys	2 095	7 275	2 034	13 011	9 965
of which: Re-exports	778	5 543	236	3 133	2 887
Ingots, blooms, billets	35 548	130 098	239 964	280 960	120 787
Scrap	452 558	1 020 901	691 914	871 409	1 029 842
Tin-plate scrap	6 317	5 202	5 086	2 915	2 863
Trinidad & Tobago					
Scrap	1 424	7 722	865	1 822	...

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
USA					
Pig-iron	56 342	52 424	58 622	} 69 610	149 751
Spiegeleisen	304	4 988	36		
Sponge & powder	14 372	22 725	14 728	14 593	18 824
Ferro-chrome	13 288	12 865	13 786	18 717	14 516
Ferro-manganese	29 908	6 445	5 821	8 966	23 480
Ferro-silico-manganese	...	...	...	4 360	4 756
Ferro-molybdenum	1 017	1 631	724	665	762
Ferro-phosphorus	396	1 484	2 160	3 781	33 831
Ferro-silicon	37 035	14 910	48 252	11 549	20 430
Ferro-vanadium	926	1 098	624	1 187	818
Other ferro-alloys	7 549	6 132	7 299	12 912	6 019
Ingots, blooms, billets	293 958	236 847	225 171	219 757	328 566
Scrap (a)(c)	8 718 861	7 371 317	5 606 707	8 452 531	10 133 680
Brazil					
Pig-iron	510 524	774 947	850 604	1 026 479	989 343
Ferro-chrome	34 469	47 461	46 661	42 393	48 205
Ferro-manganese	10 080	11 028	33 876	40 115	40 256
Ferro-nickel	3 838	1 736	415	—	—
Ferro-niobium	4 135	9 155	7 052	10 852	12 787
Ferro-silicon	3 027	6 118	2 347	12 308	17 615
Ferro-silico-spiegeleisen & silico-manganese	3 734	4 087	5 453	33 573	42 915
Ferro-silico-mangano- aluminium	1 310	7 180	17 600	6 700	300
Other ferro-alloys	413	36	276	1 573	5 204
Ingots, blooms, billets	13 313	92 139	113 392	332 920	479 585
Venezuela					
Ingots, blooms, billets	0	1	8 200	19 868	...
Brunei					
Scrap	1 391	1 626	19	4 021	...
Hong Kong					
Scrap	157 478	175 152	224 232	282 607	303 630
of which: Re-exports	4 339	3 708	5 571	19 978	39 955
Tin-plate scrap	1 100	1 450	3 053	3 772	600
India					
Pig-iron	210 399	855 868	853 998	298 743	...
Ferro-chrome	3 115	4 813	9 992	9 093	...
Ferro-manganese	...	24 154	19 300	76 200	...
Ferro-silicon	—	8 316	4 249	7 379	...
Ingots, blooms, billets (d)	155 197	327 959	306 277	...	...
Scrap	126 446	218 154	152 330	75 811	...
Israel (b)					
Scrap	1 055	3 414	2 473	3 969	...
Japan					
Pig-iron	406 846	146 331	563 911	32 678	50 225
Ferro-chrome	85 228	54 509	16 307	6 365	19 852
Ferro-manganese	130 625	121 934	48 634	37 147	92 886
Ferro-silico-manganese	8 933	9 863	3 112	342	2 377
Ferro-nickel	4 566	13 262	2 268	21 773	13 193
Ferro-silicon	26 163	8 224	2 972	2 336	2 003
Ferro-titanium	116	—	—	—	—
Ferro-vanadium	54	39	13	71	13
Other ferro-alloys	4 409	2 995	2 502	2 266	2 121
Ingots, blooms, billets	1 890 376	1 060 057	427 861	107 256	118 295
Scrap	274 759	202 659	210 740	164 395	150 562
Korea, Dem. P.R. of					
Pig-iron	* 141 400	...	...	...	...

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Korea, Republic of					
Pig-iron	150	419	15 070	...	...
Ferro-manganese	100	15	110	...	...
Ferro-silico-manganese	2 165	1 995	4 302	...	...
Ferro-silicon	5 506	17 212	14 336	...	...
Other ferro-alloys	9	24	516	...	...
Ingots, blooms, billets	16 380	11 662	18 077	...	...
Kuwait					
Scrap	18 864	29 351	14 334	6 019	...
Malaysia					
Scrap	2 518	14 070	8 418	...	...
Philippines					
Ferro-silicon	2 000	7 298	4 778	11 399	10 117
Saudi Arabia					
Scrap	5 737	1 269	49	...	...
Singapore					
Pig-iron	7 407	5 130	3 715	3 784	11 095
Ingots & blooms	8 448	5 726	1 476	7 872	6 521
Scrap	1 539	3 102	6 858	3 745	1 710
Syria					
Scrap	1 225	6 000	5 002	5 217	...
Taiwan					
Pig-iron	2 802	1 000	1 170	527	331
Ferro-chrome	250	723	432	602	1 925
Ferro-manganese	25 714	9 192	6 612	3 516	7 343
Ferro-silicon	25 113	30 400	9 642	12 481	10 415
Other ferro-alloys	—	1 665	659	2 827	1 245
Ingots, blooms, billets	5 657	858	15 147	187 297	408 464
Scrap	32 348	63 290	35 473	156 420	73 465
Australia					
Pig-iron	519 942	698 176	646 560	685 431	614 536
Ferro-alloys	432	783	20 630	33 743	...
Ingots, blooms, billets	1 635 836	1 538 060	1 280 410	1 013 467	604 604
Scrap	577 401	620 658	530 243	484 327	577 297
Tin-plate scrap (e)	10 799	4 908	3 619	3 624	...
Fiji					
Scrap (Re-exports)	1 994	846	1 232	...	...
New Caledonia					
Ferro-nickel	168 542	124 180	124 325	98 984	180 793
New Zealand (e)					
Scrap	2 550	1 847	2 161	1 391	...

Note: In this table the term "ingots, blooms, billets" corresponds to items 672.4 and 5 of the Standard International Trade Classification (Revision 2) which includes those of alloy and high carbon steel

(a) Excluding ships intended for breaking up

(b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

(c) Including tin-plate and terne-plate scrap

(d) Years ended 31 March following that stated

(e) Years ended 30 June of that stated

(f) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(g) IGS estimates, based on known imports into certain countries

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Pig-iron	70 970	165 564	150 138	131 270	132 248
Sponge & powder	13 104	53 089	26 834	34 635	37 688
Ferro-chrome	59 587	99 414	73 337	48 460	75 400
Ferro-silico-chrome	5 245	8 974	3 866	2 529	2 004
Ferro-manganese	95 925	118 257	86 116	83 695	80 766
Ferro-silico-manganese	20 106	21 260	21 985	22 023	25 730
Ferro-molybdenum	650	834	880	779	766
Ferro-nickel	11 233	11 746	16 857	15 406	18 854
Ferro-niobium	404	1 157	504	724	830
Ferro-silicon	117 199	112 315	93 088	95 458	115 257
Ferro-titanium	11	254	192	349	355
Ferro-tungsten	255	360	335	249	282
Ferro-vanadium	349	281	446	445	544
Other ferro-alloys	14 000	13 682	14 770	13 866	14 772
Ingots, blooms, billets	218 297	398 107	244 251	254 811	337 206
Scrap (a)	88 352	693 301	100 388	43 104	35 247
Belgium-Luxembourg					
Pig-iron	161 185	203 410	166 925	119 227	104 925
Sponge & powder	1 581	2 577	1 623	1 329	2 967
Spiegeleisen	398	74	366	407	173
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	1 107	2 015	2 052	1 546	2 508
Ferro-chrome	33 217	42 114	35 927	24 205	31 031
Ferro-silico-chrome	1 013	1 394	992	965	3 927
Ferro-manganese	75 238	100 658	71 741	77 262	84 315
Ferro-silico-manganese	10 614	13 411	10 642	18 854	22 336
Ferro-molybdenum	157	216	163	269	359
Ferro-nickel	3 173	5 386	1 441	2 566	7 602
Ferro-silicon	27 134	31 313	30 496	35 587	38 237
Ferro-titanium & ferro- silico-titanium	417	250	307	314	264
Ferro-tungsten & ferro- silico-tungsten	10	194	46	149	33
Ferro-vanadium	80	68	91	100	190
Other ferro-alloys	1 746	1 547	1 486	1 877	1 895
Ingots, blooms, billets	307 458	430 625	647 800	683 683	685 017
Scrap	707 238	586 001	493 209	979 683	970 474
Denmark					
Pig-iron	77 371	35 672	24 984	19 184	...
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	488	2 044	2 042	2 828	...
Ferro-chrome & ferro- silico-chrome	958	979	1 411	1 152	...
Ferro-manganese	8 213	8 621	6 000	9 995	...
Ferro-silico-manganese	2 721	1 604	1 670	2 952	...
Ferro-molybdenum	25	22	11	18	...
Ferro-silicon	4 408	5 681	5 677	5 142	...
Other ferro-alloys	78	165	129	117	...
Ingots, blooms, billets	52 678	14 968	19 449	9 599	...
Scrap	3 191	7 072	12 815	262 833	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
France					
Pig-iron	298 151	404 287	459 512	407 362	446 367
Sponge & powder	25 848	47 631	23 238	12 781	23 656
Spiegeleisen	247	205	233	76	90
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	84	186	102	44	127
Ferro-chrome	13 591	41 397	38 711	47 484	64 959
Ferro-silico-chrome	1 429	401	40	5	193
Ferro-manganese	21 021	32 620	34 916	30 114	48 592
Ferro-silico-manganese	597	2 651	4 270	12 779	29 489
Ferro-molybdenum	698	1 032	666	1 145	1 272
Ferro-nickel	159 924	104 316	96 728	72 364	159 817
Ferro-silicon	5 097	9 337	12 788	12 308	11 132
Ferro-titanium & ferro- silico-titanium	266	229	449	425	356
Ferro-tungsten & ferro- silico-tungsten	85	82	119	95	116
Ferro-vanadium	157	202	315	340	316
Other ferro-alloys	622	779	1 034	1 514	1 748
Ingots, blooms, billets	434 680	871 806	847 923	1 013 801	1 252 259
Scrap	276 290	273 632	287 030	393 803	422 289
Germany, Federal Republic of					
Pig-iron	158 092	291 534	311 445	293 221	246 036
Sponge & powder	15 106	14 924	14 669	15 696	38 170
Spiegeleisen	503	301	41	37	17
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	195	331	107	141	323
Ferro-chrome	88 369	138 673	129 125	194 540	230 291
Ferro-silico-chrome	12 541	20 086	18 922	5 491	11 472
Ferro-manganese	156 501	174 052	158 512	160 026	152 106
Ferro-silico-manganese	70 274	70 649	68 585	101 215	115 644
Ferro-molybdenum	2 674	3 681	3 392	3 140	3 393
Ferro-nickel	37 649	55 650	38 997	60 668	71 060
Ferro-niobium	1 345	1 939	1 660	2 082	3 346
Ferro-silicon	116 066	136 137	141 033	159 410	186 795
Ferro-titanium & ferro- silico-titanium	1 667	2 743	2 142	3 952	3 573
Ferro-tungsten & ferro- silico-tungsten	308	517	209	499	253
Ferro-vanadium	1 304	1 513	1 554	1 961	2 206
Other ferro-alloys	5 120	7 021	9 169	4 932	4 942
Ingots, blooms, billets	1 272 977	1 154 391	1 166 408	1 305 977	1 151 522
Scrap	1 716 219	1 540 029	1 419 455	1 546 633	1 605 401
Irish Republic					
Pig-iron & sponge	1 206	739	785	2 309	3 012
Ferro-alloys	1 492	1 379	1 013	1 594	1 051
Ingots, blooms, billets	1 536	1 483	2 139	1 389	4 730
Scrap	3 825	1 261	2 328	9 051	5 428

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Italy					
Pig-iron	660 117	770 184	626 763	386 800	513 962
Sponge & powder	6 732	30 573	28 432	57 947	87 869
Spiegeleisen	1 402	3 069	919	413	3 253
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	410	1 305	1 062	1 297	2 140
Ferro-chrome	43 099	55 753	56 864	84 085	94 328
Ferro-silico-chrome	5 395	8 011	3 560	4 243	5 241
Ferro-silico-magnesium	764	1 220	1 106	2 008	1 796
Ferro-manganese	124 823	117 185	125 484	106 151	121 808
Ferro-silico-manganese	17 161	19 846	24 943	28 553	30 807
Ferro-molybdenum	1 495	3 190	2 681	1 175	1 045
Ferro-nickel	13 796	19 555	16 512	14 562	21 905
Ferro-niobium	942	2 204	1 698	1 125	1 882
Ferro-silicon	34 329	40 588	41 796	47 099	57 018
Ferro-titanium & ferro- silico-titanium	774	801	722	1 254	1 335
Ferro-tungsten & ferro- silico-tungsten	179	55	75	53	117
Ferro-vanadium	972	330	270	661	930
Other ferro-alloys	1 005	1 018	870	989	1 601
Ingots, blooms, billets	294 107	583 547	531 919	499 713	869 568
Scrap	5 413 472	6 329 498	5 825 025	6 566 082	6 891 221
Netherlands					
Pig-iron (b)	48 352	41 557	38 146	41 252	64 769
Sponge & powder	3 964	3 887	3 206	2 803	3 755
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium (c)	128	146	127	27	12
Ferro-chrome (c)	6 579	7 194	12 264	10 709	2 983
Ferro-silico-chrome (c)	27	124	40	76	450
Ferro-manganese (c)	27 168	30 177	25 221	25 576	26 526
Ferro-silico-manganese (c)	2 230	3 167	2 303	4 163	4 094
Ferro-molybdenum (c)	71	215	156	91	122
Ferro-silicon (c)	9 603	10 157	7 827	7 731	8 898
Ferro-titanium & ferro- silico-titanium (c)	30	73	44	83	62
Ferro-tungsten & ferro- silico-tungsten (c)	2	25	42	0	25
Ferro-vanadium (c)	5	58	23	9	96
Other ferro-alloys (c)	456	651	596	316	406
Ingots, blooms, billets	296 743	458 721	208 916	229 725	254 712
Scrap	204 098	199 037	112 868	166 358	125 018
Austria					
Pig-iron	45 431	101 587	89 718	136 317	87 402
Spiegeleisen	97	87	75	85	108
Ferro-chrome	17 861	25 643	24 879	26 085	28 520
Ferro-manganese	21 257	21 364	18 461	20 525	26 275
Ferro-molybdenum	41	7	729	145	255
Ferro-niobium & ferro- niobio-tantalum	55	52	96	245	396
Ferro-silicon	10 969	14 071	12 643	15 411	16 046
Ferro-titanium	229	371	332	385	523
Ferro-tungsten	1	173	278	424	88
Ferro-vanadium	12	89	152	284	245
Other ferro-alloys	11 143	9 771	11 289	12 817	15 715
Ingots & blooms	79 205	122 408	183 041	305 990	139 287
Scrap	33 316	44 802	79 099	115 474	134 169
Bulgaria					
Pig-iron	330 070	335 897	367 000	408 000	...
Czechoslovakia					
Pig-iron	1 108 000	826 000	833 000	919 000	732 000

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Finland					
Pig-iron	52 186	371	548	2 212	14 364
Ferro-chrome & ferro-silico-chrome	1 065	904	1 171	2 556	1 889
Ferro-manganese	2 915	2 326	2 336	2 955	4 272
Ferro-silico-manganese	9 057	11 201	10 902	12 924	16 049
Ferro-molybdenum	106	200	168	170	294
Ferro-silicon	9 080	8 725	10 918	8 728	10 492
Ferro-titanium	70	31	126	201	201
Ferro-vanadium	30	40	36	83	104
Other ferro-alloys	2 371	555	1 015	5 416	14 134
Blooms & billets	23 444	65 434	5 773	13 639	1 814
Scrap	94 940	54 191	63 215	22 832	88 213
German Democratic Republic					
Pig-iron	792 000	658 000	631 000	804 000	...
Ferro-alloys	23 700	26 600	29 000	22 000	...
Scrap	348 000	541 000	496 000	546 000	...
Greece					
Pig-iron	15 419	14 588	17 387	15 275	15 014
Ferro-manganese	3 097	3 659	3 284	2 054	2 844
Ferro-silico-manganese	415	1 011	2 878	2 634	(j)
Ferro-silicon	1 896	3 006	3 930	2 534	4 264
Other ferro-alloys	378	382	472	220	(k) 8 121
Ingots, blooms, slabs	19 637	30 539	54 256	297 870	129 695
Scrap	98 151	90 679	93 359	198 132	231 282
Hungary					
Pig-iron	253 000	288 952	227 435	251 068	223 978
Ferro-chrome	...	4 989	6 066	6 602	8 861
Ferro-manganese	40 349	46 536	29 331	40 136	46 084
Ferro-molybdenum	...	569	251	198	322
Ferro-silicon	6 617	4 775	4 109	6 530	6 525
Other ferro-alloys	14 730	8 337	19 053	17 732	13 682
Ingots	262 000	298 023	518 433	546 616	532 894
Malta					
Ingots, blooms, billets	2 848	445	3 925	4 194	4 537
Norway					
Pig-iron	10 267	11 725	10 913	6 362	8 916
Ferro-alloys	2 018	1 379	490	1 265	2 639
Ingots, blooms, billets	21 239	10 169	2 869	2 135	18 079
Scrap	53 337	71 326	18 346	10 064	6 418
Poland					
Pig-iron & ferro-alloys	1 812 215	1 995 836	1 751 899	1 710 000	1 385 000
Scrap	2 121	47 099	30 064	9 000	...
Portugal					
Ferro-manganese	100	152	20	2 210	122
Ferro-silico-manganese	51	71	106	1	(j)
Ferro-silicon	283	571	443	435	275
Other ferro-alloys	2 658	675	488	404	(k) 470
Ingots, blooms, billets	970	1 250	1 825	755	522
Scrap	5 482	28 588	95 329	663 603	145 759
Romania					
Pig-iron	583 000	560 600	646 300	526 600	573 300
Ferro-alloys	172 000	223 300	160 000	169 300	190 400
Soviet Union					
Pig-iron	134 848	228 855	* 200 000	* 200 000	* 200 000
Ferro-alloys	40 420	33 269	* 35 000	* 35 000	* 35 000

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Spain					
Pig-iron	35 440	53 713	37 092	33 783	44 312
Ferro-aluminium & ferro-silico-aluminium	131	133	109	0	22
Ferro-chrome	10 174	16 426	15 286	26 836	33 694
Ferro-silico-chrome	1 875	1 250	491	590	1 548
Ferro-manganese	428	233	965	188	192
Ferro-silico-manganese	653	572	2	44	55
Ferro-molybdenum	639	722	749	156	110
Ferro-nickel	1 818	1 081	1 216	2 392	6 114
Ferro-silicon	4 060	3 280	2 619	2 115	2 109
Ferro-titanium & ferro-silico-titanium	427	355	289	497	676
Ferro-tungsten & ferro-silico-tungsten	41	53	30	2	33
Ferro-vanadium	336	390	473	449	298
Other ferro-alloys	896	1 198	1 134	1 311	1 702
Ingots, blooms, billets	672 593	1 960 077	141 853	51 175	215 168
Scrap	2 197 923	2 657 123	1 993 353	1 949 810	2 927 406
Sweden					
Pig-iron	223 820	227 306	82 038	40 489	51 817
Sponge & powder	1 678	308	688	827	1 632
Ferro-chrome	35 344	48 520	15 872	29 482	39 070
Ferro-silico-chrome	3 241	1 138	992	2 937	4 224
Ferro-manganese	54 185	50 146	24 900	37 427	42 053
Ferro-silico-manganese	14 537	16 065	5 468	7 894	9 189
Ferro-molybdenum	1 890	2 439	2 093	1 953	1 810
Ferro-nickel	49 356	29 633	20 037	21 425	36 320
Ferro-niobium	470	523	219	226	286
Ferro-silicon	20 176	21 991	22 477	32 805	37 585
Ferro-titanium	968	957	824	2 044	1 880
Ferro-tungsten	459	602	376	217	504
Ferro-vanadium	836	757	602	940	808
Other ferro-alloys	4 132	3 177	1 325	554	1 388
Ingots, blooms, billets	200 111	138 695	103 489	87 501	83 718
Scrap	338 257	137 046	32 592	117 642	129 833
Switzerland					
Pig-iron	54 611	61 922	74 883	69 493	89 331
Ferro-aluminium	46	127	103	227	167
Ferro-silicon	3 254	5 751	4 550	3 962	6 717
Other ferro-alloys	8 341	16 046	13 776	14 583	17 411
Ingots, blooms, billets	58 539	32 760	25 269	21 906	24 920
Scrap	96 803	43 793	57 751	87 236	179 051
Turkey					
Pig-iron	107 338	79 759	14 870	5 416	16 316
Ferro-manganese	20 030	25 204	22 997	21 197	9 360
Ferro-silicon	5 328	9 398	7 767	7 124	} 6 443
Other ferro-alloys	367	428	549	272	
Ingots, blooms, billets	550 413	540 830	672 263	616 372	349 717
Scrap	84 999	235 975	299 989	323 024	362 300
Yugoslavia					
Pig-iron	105 103	40 248	17 757	71 612	99 495
Ferro-chrome	58	88	137	167	125
Ferro-manganese	1 801	998	799	815	902
Ferro-molybdenum	647	519	596	503	506
Ferro-phosphorus	820	1 399	2 728	1 478	1 816
Ferro-silicon	1 293	1 180	1 122	1 219	790
Ferro-tungsten	94	126	126	90	126
Ferro-vanadium	237	210	194	329	184
Other ferro-alloys	2 636	2 442	2 886	2 798	3 537
Ingots, blooms, billets	394 500	411 054	627 102	607 575	551 816
Scrap	346 398	342 345	409 022	402 594	264 800

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Algeria					
Pig-iron	9 059	8 630	8 379	15 511	...
Ferro-manganese	888	1 371	1 026	501	...
Ferro-silico-manganese	266	70	72	87	...
Ferro-silicon	1 780	1 751	959	1 694	...
Other ferro-alloys	363	18	263	100	...
Ingots, blooms, billets	60 184	21 782	57 895	142 964	...
Egypt					
Pig-iron & spiegeleisen	57 341	36 571	32 649	28 518	11 406
Ferro-alloys	7 537	1 078	7 835	3 681	1 665
Ingots & billets	68 068	8 878	2 488	47 139	33 545
Scrap	80 718	69 323	115 402	41 679	15 829
Ethiopia					
Ingots, blooms, billets	2 332	...	2 347	7 164	...
Scrap	493	...	2 367	429	...
Ghana					
Pig-iron	1 524	...	...	...	...
Ferro-manganese	854	...	...	...	...
Ingots & blooms	179	...	...	...	...
Scrap	6 949	...	...	...	...
Ivory Coast					
Ingots, blooms, billets	8 076	10 858	13 070	11 231	9 482
Kenya					
Pig-iron & ferro-alloys (b)	1 023	641	1 015	1 063	289
Ingots & blooms	13 485	29 906	18 995	30 690	17 808
Libya					
Pig-iron & ferro-alloys (b)(i)	1 817	157	43	139	...
Ingots, blooms, billets	1 498	2 674	3 643	7 954	...
Mauritius					
Pig-iron & ingots	3 829	10 427	9 405	...	...
Morocco					
Pig-iron	2 250	3 690	3 269	1 964	625
Ferro-chrome	18	34	37	26	20
Ferro-manganese	157	219	224	178	155
Ferro-silico-manganese	36	40	60	50	—
Ferro-silicon	135	199	125	73	124
Ingots, blooms, billets	15 779	21 707	21 025	17 432	19 462
Scrap	—	218	705	1 090	1
Nigeria					
Ferro-manganese	741	814	...	...	...
Ingots & blooms	61 560	63 946	55 531	...	...
South Africa					
Pig-iron (d)	36 699	79 252	204	217	20 664
Ferro-chrome	3 656	2 705	7 390	3 187	9 234
Ferro-silicon	1 600	1 054	182	316	4 388
Other ferro-alloys	1 422	795	588	1 310	943
Ingots & blooms	144 168	10 892	2 116	7 994	5 824
Scrap	18 022	34 261	30 486	16 345	7 723
Sudan					
Ingots, blooms, billets	9 056	35	6 025	7 472	...
Tanzania					
Pig-iron & ferro-alloys (b)	2 664	1 187	2 936	882	...
Ingots & blooms	9 074	11 857	5 719	12 198	...
Tunisia					
Pig-iron	71	51	546	100	...
Ferro-alloys	920	317	1 257	1 455	...
Scrap	662	1 586	2 051	2 487	...
Uganda					
Pig-iron & ferro-alloys (b)	—	150	...	...	...
Zaire					
Ferro-alloys	456	478	622	404	...
Zambia					
Pig-iron	161	171	231	...	...
Ferro-alloys	518	604	709	...	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Canada					
Pig-iron	4 078	8 836	11 913	2 556	9 913
Sponge	5 838	3 869	3 969	4 026	5 227
Ferro-chrome	41 109	21 923	32 947	30 426	34 718
Ferro-manganese & spiegeleisen	35 701	25 054	29 404	26 809	83 679
Ferro-silico-manganese & silico-spiegeleisen	5 732	12 022	4 835	15 842	21 876
Ferro-silicon	26 353	10 386	9 131	10 482	19 800
Ferro-tungsten	45	77	103	75	28
Ferro-vanadium	100	105	138	152	352
Other ferro-alloys	8 880	24 972	17 115	17 357	7 073
Ingots, blooms, billets	106 572	22 348	61 327	53 915	180 239
Scrap	929 349	823 552	583 981	951 846	1 046 541
Costa Rica					
Ingots & blooms	28 854	44 549	43 152	...	...
El Salvador					
Ingots, blooms, billets	27 074	10 626	17 432	...	...
Scrap	44	30	46	...	...
Honduras					
Ingots & blooms	777	5 618	2 836	3 263	...
Jamaica					
Pig-iron & sponge	302	237	20	32	...
Ingots & blooms	14 161	326	3 988	3 087	...
Mexico					
Pig-iron	122 952	110 021	23 154	46 340	...
Ferro-chrome	4 205	1 878	...	...	...
Ferro-manganese	5 694	7 058	...	...	...
Ferro-nickel	10	39	...	...	...
Ferro-silicon	3 380	1 111	...	...	...
Ferro-vanadium	16	52	...	...	...
Other ferro-alloys	655	645	...	...	...
Ingots, blooms, billets	153 168	49 795	26 216	36 595	...
Scrap	1 165 431	506 705	335 046	440 249	...
Tin-plate scrap	17 652	16 199	21 104	27 998	...
Trinidad & Tobago					
Pig-iron	16	51	38	55	...
Ingots, blooms, billets	4 634	11 776	2 950	10 584	...
USA					
Pig-iron	433 730	376 176	338 169	594 580	432 167
Sponge	14 394	90 283	116 082	76 024	76 836
Ferro-chrome	289 219	220 079	203 284	296 637	219 959
Ferro-silico-chrome	3 752	14 265	14 722	500	38
Ferro-manganese	360 344	487 530	484 820	617 247	744 992
Ferro-silico-manganese	49 644	72 682	79 742	85 860	85 884
Ferro-molybdenum	2	5	87	165	28
Ferro-nickel	59 009	50 549	72 970	67 912	56 783
Ferro-niobium	1 358	1 549	1 868	2 902	3 849
Ferro-silicon	63 899	89 171	104 134	123 032	103 014
Ferro-titanium & ferro-silico-titanium	486	816	1 031	783	875
Ferro-tungsten & ferro-silico-tungsten	232	473	281	327	334
Ferro-vanadium	163	393	506	485	669
Ferro-zirconium	497	609	867	1 024	1 826
Ingots, blooms, billets	220 607	217 824	270 228	375 509	312 782
Scrap	266 000	450 000	545 000	720 263	689 702
Tin-plate scrap	11 000	10 000	12 000		
Argentina					
Pig-iron	179 404	71 534	135 619	...	...
Ferro-manganese	1 681	1 034	1 028	...	...
Ferro-silico-manganese	508	...	—	...	...
Ferro-silicon	3 328	2 008	381	...	...
Ferro-molybdenum	212	412	326	...	...
Ferro-titanium	68	64	99	...	...
Blooms & billets	619 980	423 362	256 676	...	...
Scrap	319 049	72 372	160 189	...	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Brazil					
Ferro-chrome	1 624	542	4 511	1 331	407
Ferro-silico-chrome	366	320	465	548	64
Ferro-manganese	2 525	68	99	—	1
Ferro-silicon	1 115	1 173	11 382	1 087	647
Other ferro-alloys	1 007	336	188	132	437
Ingots, blooms, billets	455 620	266	4	10 329	49 321
Colombia					
Ferro-manganese	...	6 208	2 524	...	...
Ferro-silicon	...	1 144	1 157	...	...
Ingots, blooms, billets	...	4 778	9 929	...	...
Scrap	...	8 814	11 996	...	...
Uruguay					
Ferro-alloys	234	354	409	233	461
Ingots, blooms, billets	19 623	13 608	25 336	22 580	58 966
Venezuela					
Pig-iron	139 599	101 849	76 395	33 171	...
Ferro-manganese	5 665	18 410	17 790	3 918	...
Ferro-silico-manganese	2 866	7 083	2 675	973	...
Ferro-silicon	1 220	501	726	127	...
Other ferro-alloys	158	340	3 977	1 034	...
Ingots, blooms, billets	413 260	333 485	484 555	314 882	...
Scrap	56 174	44 493	6 235	4 629	...
China					
Pig-iron & ferro-alloys (g)	* 337 000	* 420 000	* 251 000	* 472 000	* 493 000
Scrap (g)	* 160 000	* 46 000	* 100	...	...
Cyprus					
Pig-iron	524	553	1 971	1 717	...
Hong Kong					
Pig-iron	14 858	16 449	19 286	15 411	18 120
Ferro-manganese	230	958	1 053	3	234
Other ferro-alloys	425	308	53	1 207	3 011
Ingots, blooms, billets	73 628	70 575	137 526	183 770	257 273
Scrap	49 136	121 651	40 285	126 093	105 260
Tin-plate scrap	170	640	228	39	—
India					
Ferro-chrome	11	106	178	56	...
Ferro-manganese	—	—	184	31	...
Ferro-molybdenum	271	128	183	91	...
Ferro-nickel	246	271	...	4 084	...
Ferro-phosphorus	140	70	123	93	...
Ferro-silicon	76	43	66	70	...
Other ferro-alloys	121	176	79	90	...
Ingots, blooms, billets (e)	23 094	4 685	3 872	3 005	...
Scrap	15 714	28 135	73 843	107 928	...
Indonesia					
Pig-iron (d)	7 280	14 812	34 411	32 429	42 253
Ferro-manganese	537	1 200	1 251	2 594	4 238
Other ferro-alloys	1 293	2 310	1 381	1 578	2 828
Ingots, blooms, billets	75 693	120 432	163 756	198 557	276 216
Scrap	16 043	29 462	47 084	80 690	29 770
Iran (f)					
Pig-iron	6 194	9 810	...	...	...
Ferro-manganese	6 231	2 214	...	...	...
Other ferro-alloys	7 119	11 731	...	...	...
Ingots, blooms, billets	507 814	266 549	...	...	...
Scrap	7 238	502	...	...	...
Iraq					
Pig-iron	7 509	416	...	...	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Israel (I)					
Pig-iron	1 408	451	426	260	...
Spiegeleisen	...	400	51	—	...
Ferro-manganese	631	25	584	236	...
Other ferro-alloys	190	509	747	1 156	...
Ingots, blooms, billets	17 125	24 567	4 640	62 063	...
Japan					
Pig-iron	399 475	584 093	542 746	639 506	550 584
Ferro-chrome	29 104	93 002	104 098	168 597	250 317
Ferro-silico-chrome	...	13 657	5 497	5 951	23 046
Ferro-manganese	1 900	1 850	5 777	17 017	18 758
Ferro-molybdenum	646	1 036	222	651	547
Ferro-nickel	9 858	14 307	19 858	20 485	33 152
Ferro-niobium	...	1 723	905	1 177	1 989
Ferro-silicon	33 905	46 717	45 293	100 316	133 494
Ferro-tungsten	121	555	209	118	483
Ferro-vanadium	...	1 559	877	1 692	1 265
Other ferro-alloys	14 654	4 708	8 265	45 185	40 745
Ingots, blooms, billets	69 389	112 131	158 793	119 277	534 398
Scrap	3 092 847	1 802 320	1 440 286	3 229 156	3 345 998
Jordan					
Pig-iron	13 401	10 030	1 021	5 601	16 614
Ingots, blooms, billets	24 196	87 678	51 362	55 642	68 872
Korea, Republic of					
Pig-iron	75 201	8 770	19 680	...	...
Ferro-chrome	412	904	1 694	...	...
Ferro-manganese	494	1 245	1 682	...	...
Ferro-silicon	63	1 100	1 217	...	...
Other ferro-alloys	184	369	844	...	...
Ingots & blooms	191 431	132 882	274 149	...	...
Scrap	844 193	1 093 699	1 571 429	...	...
Kuwait					
Scrap	5 828	23	814	609	...
Malaysia					
Pig-iron	8 520	7 093	5 195	...	...
Ferro-manganese	1 407	1 824	2 083	...	...
Other ferro-alloys	1 437	1 191	3 043	...	...
Ingots, blooms, billets	10 017	24 724	10 723	...	...
Scrap	4 443	2 478	2 550	...	...
Pakistan (h)					
Scrap	...	138 334	103 818	210 623	113 570
Philippines					
Pig-iron	28 102	62 851	52 419	35 133	44 560
Ferro-manganese	1 161	1 279	1 743	2 936	5 537
Ferro-silicon	1 554	155	205	262	177
Other ferro-alloys	304	567	946	694	1 279
Ingots, blooms, billets	152 727	259 707	350 653	276 083	440 452
Scrap	61 363	95 715	62 234	79 282	95 465
Saudi Arabia					
Pig-iron	2 996	7 748	8 445	...	...
Ferro-alloys	444	242	863	...	...
Ingots, blooms, billets	7 982	5 348	5 102	...	...
Scrap	433	2 052	225	...	...
Singapore					
Pig-iron (d)	71 901	21 800	7 852	55 807	79 861
Ferro-manganese	1 562	705	110	2 143	6 328
Other ferro-alloys	1 444	4 082	2 310	3 920	1 409
Ingots & blooms	101 024	136 697	32 288	63 452	109 520
Scrap	96 052	54 754	23 458	92 940	109 055
Sri Lanka					
Ingots, blooms, billets	19 075	16 537	...	...	...
Syria					
Pig-iron	2 889	10 682	12 048	5 494	...
Ingots, blooms, billets	23 576	204 797	80 245	75 359	...
Scrap	4 153	6 105	4 211	3 020	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1975	1976	1977	1978	1979
Taiwan					
Pig-iron	6 213	68 556	10 278	68 686	65 416
Ferro-chrome	94	297	543	1 204	2 887
Ferro-manganese	215	421	438	633	859
Ferro-silicon	83	110	135	206	335
Other ferro-alloys	170	5 260	400	584	848
Ingots, blooms, billets	16 496	81 305	94 205	26 673	70 440
Scrap	407 913	297 090	571 057	622 219	760 688
Thailand					
Pig-iron (d)	2 313	553	20 337	50	...
Ferro-manganese	194	2 060	2 315	2 356	...
Ferro-silicon	3 188	2 728	3 484	2 052	...
Other ferro-alloys	536	336	826	271	...
Ingots, blooms, billets	16 071	12 362	333	4 272	...
Scrap	257 187	275 609	423 615	801 963	...
Australia					
Ferro-chrome	4 964	6 019	12 482	18 730	13 835
Ferro-manganese (i)	4 424	4 882	3 101	5 460	15 758
Ferro-silico-manganese	1 037	603	115	...	...
Ferro-molybdenum	149	92	205	191	220
Ferro-nickel	1 207	5	38	—	55
Ferro-silicon	17 161	11 800	6 437	6 363	7 149
Other ferro-alloys	1 465	3 196	1 869	...	...
Ingots & billets	1 023	300	578	470	...
Scrap (h)	492	359	191	659	...
Fiji					
Pig-iron	64	132	35	...	...
Ingots, blooms, billets	2 553	9 183	8 207	...	...
New Zealand (h)					
Pig-iron	4 307	2 718	1 039	891	803
Spiegeleisen	50	142	108	183	108
Ferro-manganese	3 096	993	2 335	1 681	1 617
Other ferro-alloys	2 085	1 022	1 914	1 779	2 458
Billets & blooms	23 024	7 095	4 141	4 938	8 798
Scrap	20 343	18 190	17 036	16 962	1 475
Solomon Islands					
Billets & blooms	1 313	575	876	1 446	2 443

Note: In this table the term "ingots, blooms, billets" corresponds to items 672.4 and 5 of the Standard International Trade Classification (Revision 2) which includes those of alloy and high carbon steel

- (a) Excluding ships intended for breaking up
- (b) Including spiegeleisen
- (c) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any
- (d) Including cast iron
- (e) Years ended 31 March following that stated
- (f) Years ended 20 March following that stated
- (g) IGS estimates, based on known exports from certain countries
- (h) Years ended 30 June of that stated
- (i) Including powder
- (j) Included with 'other ferro-alloys'
- (k) Including ferro-silico-manganese
- (l) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Kaolin

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom (a)	2 266 000	2 533 000	2 775 000	2 859 000	3 102 000
Belgium	* 100 000	* 120 000	* 120 000	* 120 000	* 120 000
Denmark (a)	195	* 80	* 70	* 30	1
France (b)	568 794	612 541	578 516	265 000	315 000
Germany, Federal Republic of (i)	335 000	365 000	399 000	413 000	432 000
Italy	88 800	85 958	83 772	69 075	67 194
Austria	...	71 579	74 147	69 503	78 554
Bulgaria	* 150 000	* 194 000	* 194 000	* 200 000	* 200 000
Czechoslovakia (c)	526 000	545 000	580 000	499 000	513 000
Greece	73 785	70 350	67 686	64 933	32 478
Hungary (c)	89 000	72 000	77 600	75 000	72 488
Poland	83 800	94 800	90 500	66 000	49 000
Portugal	59 355	63 895	62 619	62 185	64 006
Romania	* 87 400	* 90 000	* 90 000	* 90 000	* 90 000
Soviet Union	* 2 200 000	* 2 200 000	* 2 300 000	* 2 400 000	* 2 500 000
Spain (c)	346 672	339 094	345 270	251 097	...
Sweden (h)	—	...	298	344	...
Turkey	34 535	55 611	59 162	43 685	70 584
Yugoslavia (h)	44 000	54 000	41 000	...	...
Algeria	10 507	7 790	11 600	17 200	18 100
Egypt	33 364	28 267	38 648	63 489	41 538
Ethiopia	* 50 000	* 45 000	* 40 000	* 30 000	* 30 000
Kenya	—	2	495	2 719	530
Madagascar	4 307	25 397	2 152	2 596	* 3 000
Mozambique	454	* 650	—	—	—
Nigeria	* 1 000	1 526	1 338	1 819	620
South Africa	56 808	59 733	88 619	122 024	148 740
Swaziland	2 660	989	—	—	—
Tanzania	1 004	2 385	77	* 1 000	* 1 000
Zimbabwe	2 628	4 346	4 543	1 017	2 686
Mexico	120 440	71 350	87 589	45 442	...
USA (e)	4 839 059	5 559 011	5 860 943	6 325 800	7 250 000
Argentina	113 482	83 726	74 284	* 76 000	* 82 000
Brazil	172 834	209 704	259 836	1 155 231	* 1 180 000
Chile	59 532	66 735	55 712	48 117	59 222
Colombia	* 125 000	* 150 000	* 150 000	* 150 000	* 150 000
Ecuador	2 270	1 138	8 790	4 613	...
Paraguay	* 12 000	* 14 000	* 22 000	* 35 000	* 27 000
Peru	9 516	9 116	10 600	* 3 600	* 4 500
Venezuela	15 000	10 000	* 10 000	* 23 000	* 18 000
Bangladesh (d)	4 472	3 367	4 186	5 778	7 305
China	...	* 21 000	* 21 000	* 23 000	...
Hong Kong	1 490	1 305	2 466	25 046	2 841
India (c)	371 000	438 000	445 000	418 000	471 076
Indonesia	25 132	29 323	36 676	34 500	* 36 300
Iran	* 100 000	127 400	* 110 000	* 180 000	...
Israel	12 193	10 000	5 500	* 6 400	* 7 300
Japan	215 607	212 965	203 327	227 895	* 227 000
Jordan	2 000	3 000	4 000	10 000	25 000
Korea, Republic of	381 734	379 595	356 550	366 370	374 423
Malaysia	16 807	26 252	31 856	31 174	32 934
Pakistan	1 085	505	566	1 992	...
Sri Lanka	3 698	4 334	5 159	5 512	5 870
Taiwan	17 435	27 484	29 230	66 180	85 041
Thailand	15 782	16 660	24 810	33 764	42 635

Kaolin

tonnes

Production of Kaolin

Country	1975	1976	1977	1978	1979
Australia (c)(f)	80 674	69 303	88 884	89 200	* 90 700
New Zealand	26 997	58 834	94 742	33 471	25 590
World total (g)	14 000 000	15 350 000	16 100 000	17 300 000	18 700 000

(a) Sales

(b) Including kaolinitic clay

(c) Partly beneficiated material

(d) Years ended 30 June of that stated

(e) Sold or used by producers

(f) White clays: including kaolin and ball clay

(g) Other countries known to produce kaolin include German Democratic Republic, Lebanon and Vietnam

(h) Beneficiated

(i) Washed and dried

Kaolin

Exports of Kaolin

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 767 802	2 061 921	2 267 534	2 303 513	2 628 237
Belgium-Luxembourg	3 656	9 220	6 187	3 176	20 346
Denmark	956	856	738	936	...
France	110 954	104 472	120 996	121 325	154 671
Germany, Federal Republic of	108 378	97 734	101 120	102 600	114 578
Italy	40 918	51 012	64 547	42 544	29 490
Netherlands	52 192	71 535	71 194	84 085	88 931
Austria	13 188	16 630	13 404	21 271	25 269
Czechoslovakia	296 000	397 000	412 000	382 000	382 000
German Democratic Republic	80 250	108 260	83 475	87 413	...
Greece	16 023	17 154	15 565	13 171	...
Hungary	...	7 236	7 724	7 025	6 791
Portugal	3	0	—	36	...
Soviet Union (a)	* 40 600	* 39 400	* 25 000	* 22 200	* 26 900
Spain	47 693	59 237	57 720	59 802	71 794
Sweden	147	78	744	131	376
Turkey	1 506	66	—	55	...
Yugoslavia	4 765	7 668	10 638	9 812	5 618
Algeria (b)	800	460	150	100	...
South Africa	634	941	1 047	988	1 263
Swaziland	2 642	989	—	—	—
USA	798 140	764 135	864 427	1 065 860	1 438 676
Argentina	—	20	85	...	...
Brazil	2 845	818	11 470	21 445	46 543
Hong Kong	1 932	1 843	2 941	2 336	5 554
of which: Re-exports	—	13	—	6	3 182
India	1 818	3 778	5 265	4 061	...
Indonesia	1 710	500	2 175	2 558	1 574
Japan	4 341	3 926	2 386	2 470	2 328
Korea, Republic of	109 340	119 818	104 781	88 112	...
Malaysia	9 865	11 921	11 845	...	...
Singapore	144	611	893	1 593	1 613

(a) IGS estimates, based on known imports into certain countries

(b) Including bentonite

Imports of Kaolin

Country	1975	1976	1977	1978	1979
United Kingdom	9 466	5 350	7 363	6 560	5 853
Belgium-Luxembourg	237 206	252 834	275 973	289 598	290 085
Denmark	29 721	25 162	32 746	33 465	...
France	278 500	288 500	322 324	306 755	332 710
Germany, Federal Republic of	554 821	653 325	679 510	716 893	800 114
Italy	430 841	565 442	631 931	673 576	767 543
Netherlands	309 345	377 792	371 919	393 188	438 693
Austria	73 043	89 085	96 950	102 546	111 887
Finland	221 627	290 678	361 648	330 644	419 969
German Democratic Republic	32 128	27 825	27 500	47 400	...
Greece	65 444	65 593	69 624	51 104	...
Hungary	28 533	28 797	24 871	34 563	41 685
Norway	77 800	76 585	77 512	79 369	83 765
Poland	155 699	163 651	161 034	185 221	...
Portugal	4 760	6 211	9 334	10 357	...
Spain	121 382	134 504	165 756	165 311	172 379
Sweden	222 855	224 857	245 800	257 343	291 381
Turkey	5 334	4 973	5 041	693	...
Yugoslavia	59 528	60 389	67 062	73 464	75 805
Algeria (d)	6 281	12 769	12 393	7 193	...
Egypt (c)	15 543	22 314	18 846	—	—
Ivory Coast	51	120	114	167	138
Morocco	1 868	4 583	3 303	2 119	2 601
Tunisia (d)	18 701	11 032	17 234	15 034	...
Canada	148 378	176 751	153 775	181 890	273 427
Costa Rica	810	1 694	1 244	...	...
Guatemala	3 419	13 457	6 779	...	...
Mexico	32 696	39 598	45 507	55 550	...
Nicaragua (c)	3 324	6 454	...	...	1 264
USA	17 351	20 962	17 838	11 592	28 537
Argentina	12 400	16 853	17 778	...	...
Brazil	4 505	14 813	4 096	2 453	3 307
Colombia	...	3 208	5 550	...	...
Uruguay	1 114	1 638	1 864	2 110	3 313
Venezuela	16 542	24 530	30 087	21 539	...
Hong Kong	5 653	3 387	1 088	387	5 086
India	10	5	13	50	...
Indonesia	5 769	4 116	3 500	8 247	11 429
Iran (a)	18 848	22 663	...	...	...
Japan	284 389	373 820	404 320	467 410	578 548
Korea, Republic of	8 129	14 301	116 028	...	...
Malaysia	1 313	1 544	1 816	...	...
Pakistan (b)	...	2 483	3 756	3 824	10 603
Philippines	4 686	5 226	7 168	9 107	9 441
Saudi Arabia	466	9 931	7 538	...	...
Singapore	2 464	2 741	4 925	4 802	5 983
Taiwan	20 857	28 119	32 418	42 171	40 425
Thailand	2 546	6 844	1 342	2 296	...
Australia	1 718	5 262	6 432	10 202	6 193
New Zealand (b)	2 288	1 394	3 927	2 345	956

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) May include other clays

(d) Including bentonite

Lead

Mine Production of Lead

tonnes (metal content)

Country	1975	1976	1977	1978	1979
United Kingdom	6 426	7 053	8 178	4 582	4 701
France	22 305	27 996	31 481	35 500	29 531
Germany, Federal Republic of	32 343	31 667	31 132	22 374	* 33 000
Irish Republic	36 247	32 612	41 012	47 744	69 000
Italy	29 500	29 300	30 475	27 308	27 259
Austria	6 101	5 393	5 002	5 524	5 214
Bulgaria	* 108 000	* 110 000	* 117 000	* 117 000	* 116 000
Czechoslovakia	* 4 700	* 4 700	* 4 300	* 4 000	* 3 500
Finland (a)	900	1 100	627	791	1 390
Greece	13 206	* 27 000	16 024	20 300	21 638
Greenland	32 000	38 000	39 500	43 200	44 500
Hungary	864	259	175	1 023	965
Norway	3 229	3 861	3 163	3 076	3 227
Poland	65 000	72 000	66 900	63 000	* 57 000
Romania	* 40 000	* 42 500	* 42 000	* 42 900	* 33 000
Soviet Union	* 600 000	* 600 000	* 625 000	* 600 000	* 590 000
Spain	58 518	66 396	65 540	71 341	* 74 500
Sweden	70 383	81 625	88 132	83 496	79 400
Turkey	6 454	4 926	8 718	8 400	* 7 500
Yugoslavia	126 896	122 466	129 977	124 389	* 129 800
Algeria	3 200	2 100	900	1 600	2 300
Congo	1 997	2 100	* 2 100	4 000	...
Morocco	67 812	64 146	104 308	109 420	117 000
Namibia	53 100	46 400	41 200	38 600	41 000
Nigeria	130	276	112	118	* 114
South Africa	3 605	—	—	—	—
Tunisia	9 930	9 694	9 032	8 349	10 000
Zambia (b)	18 832	13 583	13 109	12 878	12 758
Canada	352 502	243 956	327 593	365 782	341 000
Guatemala	71	(b) 109	(b) 108	(b) 119	100
Honduras	23 263	18 590	23 538	21 800	16 400
Mexico	178 615	200 027	163 479	170 533	173 500
USA (a)	563 783	552 971	537 499	529 661	519 910
Argentina	30 046	33 004	33 601	30 700	31 000
Bolivia	16 018	18 581	18 441	18 042	15 359
Brazil	22 365	22 615	24 039	31 203	24 800
Chile	309	1 816	876	431	252
Colombia	114	* 140	* 115	* 120	...
Peru (a)	154 168	159 758	166 068	170 500	175 000
Burma	9 800	7 100	8 000	9 200	6 500
China	* 140 000	* 140 000	* 150 000	* 150 000	* 155 000
India	12 300	12 800	14 400	13 100	15 700
Iran (c)	50 000	40 000	30 000	30 000	15 000
Japan	47 208	48 906	50 132	51 770	46 900
Korea, Dem. P.R. of	* 120 000	* 120 000	* 110 000	* 105 000	* 100 000
Korea, Republic of	12 164	14 533	16 552	16 100	11 073
Philippines	3 381	4 530	3 695	1 448	2 034
Thailand	1 443	851	476	1 578	...
Australia	407 801	397 403	432 204	400 291	415 591
World total	3 600 000	3 500 000	3 600 000	3 600 000	3 600 000

(a) Recoverable

(b) Smelter

(c) Years ended 20 March following that stated

Lead

Production of Refined Lead

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom (a)	241 291	341 868	351 078	345 788	368 330
Belgium (a)	114 948	121 524	122 796	125 040	113 412
Denmark	13 700	18 600	23 200	26 200	25 166
France	150 746	172 231	184 100	183 678	219 712
Germany, Federal Republic of	260 166	278 305	309 617	305 000	356 000
Italy	90 000	118 200	117 700	116 200	126 000
Netherlands	23 900	21 890	21 132	18 172	16 432
Austria (a)	14 792	16 191	16 900	15 900	* 19 900
Bulgaria	* 110 000	* 112 000	* 112 000	* 125 000	* 125 000
Czechoslovakia	18 447	19 116	19 015	19 042	19 020
German Democratic Republic (a)	* 36 000	* 36 000	* 37 000	* 38 000	* 40 000
Greece	16 300	18 700	20 400	22 600	15 630
Norway	600	—	500	400	—
Poland	76 200	80 600	85 400	86 700	84 200
Portugal	340	388	241	176	* 500
Romania	38 875	42 465	41 702	42 815	40 900
Soviet Union	* 660 000	* 700 000	* 720 000	* 770 000	* 780 000
Spain	98 200	101 700	118 600	122 200	126 900
Sweden	38 673	49 405	52 030	58 692	* 60 000
Turkey	3 000	3 200	3 000	3 000	5 900
Yugoslavia	125 691	111 220	129 890	116 703	111 040
Morocco	7 900	26 400	33 200	30 000	36 800
Namibia	44 300	39 600	42 700	39 500	41 700
South Africa	13 200	22 000	24 000	23 600	23 300
Tunisia	23 700	23 870	19 501	16 074	17 441
Zambia	18 832	13 583	13 109	12 878	12 758
Canada	171 516	175 720	187 457	194 054	186 000
Guatemala	189	109	108	119	...
Mexico	172 928	189 731	153 948	166 098	* 170 000
USA	579 008	596 491	554 825	570 713	581 576
Argentina	36 000	50 000	45 000	31 300	33 600
Brazil	37 540	43 672	48 303	47 236	* 50 000
Peru	71 142	85 500	84 300	79 300	90 700
Burma (b)	2 587	2 882	5 498	5 408	...
China (a)	* 140 000	* 140 000	* 150 000	* 160 000	* 170 000
India	4 769	5 435	7 588	10 059	9 820
Japan	194 217	219 053	221 398	228 442	221 247
Korea, Dem. P.R. of	* 80 000	* 70 000	* 70 000	* 75 000	* 70 000
Korea, Republic of	5 739	7 781	6 742	7 218	7 600
Australia	159 793	181 941	181 501	204 022	215 734
World total	3 900 000	4 300 000	4 300 000	4 400 000	4 600 000

Note: This table includes lead content of antimonial lead

(a) Including secondary metal

(b) Years ended 31 March following that stated

Lead

Exports of Lead

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	10 414	9 272	5 558	6 860	5 187
Unwrought	79 643	77 072	103 751	105 195	125 081
Unwrought alloys	26 889	26 562	22 320	16 914	11 467
Scrap	19 046	11 616	6 874	16 615	32 369
Belgium-Luxembourg					
Ore	2	7	16	25	1 197
Unwrought	55 387	67 383	69 312	76 206	63 437
Unwrought alloys	5 102	5 827	7 617	9 782	10 743
Scrap	6 642	8 328	12 698	15 653	22 531
Denmark					
Ore	245	633	600	580	...
Unwrought	1 362	4 028	9 559	9 834	...
Unwrought alloys	3 933	6 892	8 796	8 127	...
Scrap	402	468	1 189	801	...
France					
Ore	7 513	64	29	40	34
Unwrought	7 807	16 829	16 932	34 959	40 647
Unwrought alloys	13 357	16 016	20 330	18 466	17 880
Scrap	5 139	15 055	76 642	32 661	30 191
Germany, Federal Republic of					
Ore	3 434	7 094	6 639	10	2 577
Unwrought	63 372	52 817	81 642	82 124	73 981
Unwrought alloys	17 530	19 381	23 761	24 686	33 050
Scrap	17 769	21 710	18 564	16 801	18 414
Irish Republic					
Ores & concentrates	58 641	56 836	71 886	69 175	115 276
Unwrought (a)	2 029	2 194	3 079	3 231	3 196
Italy					
Ore	20 017	26 554	26 980	19 207	19 359
Unwrought (a)	3 529	4 145	6 673	8 313	20 505
Netherlands					
Unwrought	12 218	7 795	5 951	5 663	3 768
Unwrought alloys	12 376	15 118	9 002	16 059	14 939
Scrap	11 611	16 671	39 874	32 825	35 362
Austria					
Unwrought	404	204	766	673	413
Scrap	638	877	665	12	79
Finland					
Ore	...	4 089	...	2 022	2 035
Unwrought (a)	66	9	1 303	808	992
Greece					
Ore	12 987	37 708	20 832	47 795	55 610
Greenland					
Ores & concentrates	37 159	35 581	41 660	43 205	...
Norway					
Ore	4 100	4 599	5 846	4 432	6 293
Unwrought (a)	575	430	90	36	254
Scrap	4 744	7 017	6 687	6 303	7 598
Poland					
Concentrates	15 263	17 827	...	...	...
Portugal					
Ore	—	—	140	740	1 533
Unwrought (a)	3	40	1	504	13
Soviet Union					
Unwrought	98 889	* 99 000	* 95 000	* 95 000	* 95 000
Spain					
Unwrought (a)	1 563	1 444	1 769	10 548	19 644
Sweden					
Ore	49 520	61 036	68 445	58 385	59 190
Unwrought	26 561	37 590	46 827	52 779	43 185
Unwrought alloys	1 487	1 621	1 965	1 555	1 735
Scrap	0	118	99	86	36
Switzerland					
Unwrought	1 768	1 512	3 387	2 796	4 874
Scrap	5 485	7 549	9 443	8 530	11 608

Exports of Lead

Lead

tonnes

Country	1975	1976	1977	1978	1979
Turkey					
Ore (e)	4 875	9 450	8 448	—	...
Concentrates	1 750	—	4 525	—	...
Yugoslavia					
Concentrates	...	11 288	5 430	39 893	13 496
Unwrought	50 845	47 035	50 848	41 015	33 852
Unwrought alloys	178	118	563	3 401	3 121
Algeria					
Ore	4 695	4 555	2 682	1 000	...
Scrap	1 102	1 200	790	—	...
Congo					
Ore	11 501	11 404	9 656	...	...
Ivory Coast					
Scrap	324	434	563	547	776
Kenya					
Ores & concentrates	1 774	800	—	—	4
Scrap	2 431	459	663	360	392
Morocco					
Ore	74 762	71 239	120 571	119 614	118 540
Unwrought	5 364	17 547	29 942	21 335	34 250
Nigeria					
Ores & concentrates	177	40	...	...	...
Senegal					
Unwrought & scrap	165	...	159	...	...
South Africa					
Concentrates	5 557	1 626	—	—	—
Unwrought	27 100	16 700	24 000	39 000	26 000
Sudan					
Scrap	830	598	43	297	...
Tanzania					
Scrap	253	145	...	145	...
Tunisia					
Ore	...	5 859	1 550	—	...
Unwrought	20 132	20 750	14 549	12 153	...
Scrap	450	—	14 580	—	...
Zambia					
Unwrought	19 376	15 000	11 400	10 000	10 000
Canada					
Ore (b)	211 909	140 942	137 820	142 641	151 497
Unwrought	110 900	114 551	130 823	131 955	117 994
Scrap	12 144	14 911	15 963	17 636	21 884
Honduras					
Ores & concentrates	36 604	28 651	36 354	34 338	...
Mexico					
Ores & concentrates	10	7 434	9 965	11 108	...
Unwrought –					
Refined	98 338	56 354	75 904	72 266	...
Base bullion	3 368	9 116	1 670	3 172	...
USA					
Ores & concentrates (b)	...	...	...	54 231	33 090
Unwrought	16 028	2 020	1 842	2 145	6 587
Unwrought alloys	846	1 946	2 741	1 024	800
Scrap	45 400	42 553	77 692	98 687	119 854
Bolivia					
Ore (b)	17 665	18 580	19 878	16 482	15 633
Colombia					
Ore	...	234	346	...	...
Peru					
Ores & concentrates	118 080	162 983	127 732	147 900	...
Refined	62 699	83 044	96 299	92 525	69 900
Burma					
Unwrought	6 796	...	...	...	...
Hong Kong					
Scrap	1 258	2 001	490	1 122	1 482

Lead

Exports of Lead

tonnes

Country	1975	1976	1977	1978	1979
Iran (c)					
Ore	82 381	4 444	...	...	...
Japan					
Ores & concentrates	...	3 728	6 964	9 312	8 266
Unwrought (a)	39 494	8 641	8 297	7 815	9 152
Scrap	1 468	2 855	3 673	1 425	6 178
Korea, Republic of					
Ore	6 710	8 360	7 640	10 685	...
Philippines					
Concentrates	3 735	7 395	6 555	2 268	5 574
Taiwan					
Unwrought	703	1 104	1 303	4 577	10 421
Thailand					
Ore	821	1 234	3 710	2 500	...
Australia					
Ores & concentrates (b)(d)	61 000	40 278	57 668	95 091	38 847
Base bullion (b)	142 414	172 032	167 533	147 101	141 243
Unwrought	116 254	157 852	125 108	149 816	} 163 589
Unwrought alloys	4 950	6 644	7 730	8 454	
Scrap	1 162	1 027	2 440	9 757	

Note: In this table the description 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 2) and comprises base bullion, pigs, unwrought bars, etc

(a) Including alloys

(b) Pb content

(c) Years ended 20 March following that stated

(d) Including Pb content of matte, slags, etc

(e) Complex lead-zinc ore

Imports of Lead

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates (b)	29 563	* 7 900	30 217	42 932	67 812
Unwrought	199 207	232 990	180 277	191 480	199 805
Unwrought alloys	2 760	3 726	4 391	6 766	5 398
Scrap	1 560	1 762	7 268	2 598	9 081
Belgium-Luxembourg					
Ore	90 268	132 588	52 912	74 541	82 218
Unwrought	16 203	28 334	48 478	50 557	50 242
Unwrought alloys	4 133	5 048	6 222	5 837	7 558
Scrap	12 439	9 619	12 682	14 593	12 632
Denmark					
Unwrought	6 245	6 516	7 060	6 932	...
Unwrought alloys	1 376	835	1 048	349	...
Scrap	6 013	12 545	20 273	21 869	...
France					
Ore	129 816	96 536	125 561	134 738	134 824
Unwrought	50 825	47 433	39 775	34 048	45 749
Unwrought alloys	6 973	8 955	7 856	4 190	6 068
Scrap	12 575	6 611	58 893	17 246	26 411
Germany, Federal Republic of					
Ore	208 978	190 104	195 020	170 055	191 179
Unwrought	114 414	93 500	94 208	107 567	105 236
Unwrought alloys	8 416	16 954	20 611	23 535	23 797
Scrap	10 205	23 769	50 538	45 621	62 566
Irish Republic					
Unwrought (a)	1 679	2 424	2 627	4 443	4 007
Italy					
Ore	13 616	19 969	14 262	18 589	45 365
Unwrought (a)	129 511	159 586	161 482	138 268	151 411
Scrap	18 531	22 312	40 832	38 275	48 707
Netherlands					
Unwrought	35 823	39 641	45 323	45 884	44 069
Unwrought alloys	8 056	12 216	15 362	14 034	12 004
Scrap	19 291	9 805	16 706	10 882	10 022
Austria					
Ore	7 424	7 561	7 822	4 258	6 193
Unwrought	15 909	22 999	23 198	24 510	29 539
Scrap	1 609	2 435	2 114	1 203	1 920
Finland					
Unwrought (a)	13 982	14 605	14 613	12 332	16 306
Greece					
Ore	7 614	19 292	7 277	...	3 468
Unwrought (a)	8 529	10 196	7 013	5 616	4 964
Hungary					
Unwrought & semi-manufactures	12 392	14 319	16 582	15 005	13 240
Iceland					
Unwrought	17	98	68	66	18
Norway					
Unwrought	8 224	7 211	7 282	7 430	7 065
Unwrought alloys	4 647	7 453	4 772	5 748	5 037
Poland					
Unwrought	13 170	12 076	9 384	9 579	...
Portugal					
Unwrought (a)	8 362	13 796	12 349	16 623	14 878
Scrap	77	182	51	82	90
Soviet Union					
Ore	54 644	41 554	49 818	47 695	...
Unwrought	56 700	* 60 000	* 55 000	* 60 000	* 80 000
Spain					
Ore	26 028	17 887	24 372	33 344	15 155
Unwrought (a)	6 848	8 995	1 396	3 653	1 165
Scrap	454	2 494	462	4 024	286
Sweden					
Unwrought	3 176	2 031	443	426	1 186
Unwrought alloys	1 497	2 541	2 808	1 263	1 749
Scrap	1 452	2 456	6 030	5 045	6 988

Lead

Imports of Lead

tonnes

Country	1975	1976	1977	1978	1979
Switzerland					
Unwrought	14 355	14 748	14 477	15 048	11 592
Turkey					
Unwrought (a)	4 724	7 468	7 406	3 328	2 921
Scrap	2 069	1 286	103	—	...
Yugoslavia					
Concentrates	20 106	8 123	22	1 923	1 978
Unwrought	15 597	3 824	5 321	8 188	9 521
Scrap	3 130	938	2 187	...	1 124
Algeria					
Unwrought	7 817	3 495	1 098	7 866	...
Unwrought alloys	1 168	467	976	1 540	...
Egypt					
Unwrought & scrap	15 242	6 545	10 066	15 955	4 803
Ghana					
Unwrought (a)	141	...	...	...	...
Kenya					
Unwrought (a)	329	563	2 185	878	272
Libya					
Unwrought	3 358	343	3 251	812	...
Madagascar					
Unwrought (a)	377	223	344	379	258
Mauritius					
Unwrought (a)	8	5	24	...	...
Morocco					
Unwrought	2 084	225	0	—	—
Unwrought alloys	205	84	5	6	1
Mozambique					
Unwrought	268	478	465	...	...
Nigeria					
Unwrought (a)	115	154	...	...	...
South Africa					
Ore	1 004	5 766	—	—	—
Unwrought	3 297	5 009	2 202	5 662	3 350
Scrap	8 299	12 474	4 957	29 699	31 518
Sudan					
Unwrought	88	360	440	56	...
Tanzania					
Unwrought (a)	32	38	...	38	...
Tunisia					
Ore	24 089	18 523	5 850	1 456	...
Barbados					
Unwrought (a)	25	20	20	51	...
Canada					
Unwrought	1 962	1 941	822	1 715	2 133
Costa Rica					
Unwrought & semi-manufactures (a)	144	277	288	...	...
El Salvador					
Unwrought (a)	164	65	100	...	...
Honduras					
Unwrought (a)	75	95	57	21	...
Jamaica					
Unwrought (a)	186	33	39	54	...
Mexico					
Unwrought & scrap	564	509	818	278	...
Nicaragua					
Unwrought (a)	166	207	...	...	198
Trinidad & Tobago					
Unwrought (a)	177	286	484	562	...

Lead

tonnes

Imports of Lead

Country	1975	1976	1977	1978	1979
USA (b)					
Ores & concentrates	79 434	69 278	66 533	52 984	39 998
Base bullion	419	2 117	7 319	4 307	1 681
Unwrought	79 589	119 852	218 955	202 617	174 279
Unwrought alloys	11 593	8 454	12 966	21 451	20 238
Scrap	1 177	2 023	3 158	2 767	3 645
Argentina					
Unwrought	6 115	299	69	...	...
Brazil					
Ore	24 836	29 799	42 601	44 765	41 994
Unwrought (a)	13 254	9 144	14 857	754	602
Colombia					
Unwrought (a)	...	2 924	...	...	...
Uruguay					
Unwrought	1 191	1 071	1 189	1 436	2 509
Venezuela					
Unwrought (a)	3 194	2 468	2 823	2 430	...
China					
Refined (f)	* 44 300	* 26 300	* 10 600	* 24 000	* 34 700
Hong Kong					
Unwrought	508	1 017	1 112	(a) 1 190	(a) 1 902
Scrap	96	540	241	288	458
India					
Ore	30	145	20	101	...
Unwrought (c)	22 251	45 825	43 453	25 411	* 9 800
Unwrought alloys (c)	1 575	412	3 152	1 950	
Indonesia					
Unwrought	2 598	3 414	4 299	6 547	4 833
Iran (d)					
Unwrought	602	1 001	...	...	...
Iraq					
Unwrought (a)	19	2 547	...	...	...
Israel (g)					
Unwrought	106	1	706	2 266	...
Japan					
Ore	200 758	154 601	193 875	222 447	218 544
Unwrought	15 822	32 203	28 478	50 923	50 372
Unwrought alloys	1 380	2 826	3 597	8 436	12 300
Scrap	1 103	1 402	2 856	6 704	2 023
Jordan					
Unwrought & scrap	1 760	3 176	1 687	3 786	1 481
Korea, Republic of					
Unwrought (a)	4 528	6 568	11 493	20 500	19 100
Scrap	3 728	4 394	15 251	...	...
Malaysia					
Unwrought (a)	1 000	1 497	2 228	...	...
Scrap	739	903	757	...	...
Philippines					
Unwrought (a)	6 354	4 978	6 651	7 698	7 649
Singapore					
Unwrought	2 590	3 629	3 946	4 560	3 132
Syria					
Unwrought & scrap	2 547	3 169	3 774	3 711	...

Lead

Imports of Lead

tonnes

Country	1975	1976	1977	1978	1979
Taiwan					
Unwrought (a)	5 171	6 361	8 654	8 794	8 856
Scrap	4 474	7 575	12 869	22 061	46 964
Thailand					
Unwrought (a)	7 779	7 528	6 429	8 482	...
New Zealand (e)					
Unwrought (a)	7 770	8 889	7 497	8 625	7 522

Note: In this table the description 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 2) and comprises base bullion, pigs, unwrought bars, etc

(a) Including alloys

(b) Pb content

(c) Years ended 31 March following that stated

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

(f) Imports from western countries only

(g) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Lithium Minerals

Country	1975	1976	1977	1978	1979
Portugal					
Lepidolite	1 100	1 100	1 000	800	1 000
Soviet Union	* 45 000	* 45 000	* 50 000	* 50 000	* 50 000
Mozambique					
Lepidolite	* 730	* 730	—	—	—
Spodumene	* 25	* 25	—	—	—
Namibia	51 373	5 892	2 548	...	* 2 700
Rwanda					
Amblygonite	* 30	* 30	* 30	* 30	* 30
Zimbabwe	883	40 722	8 050	16 688	13 197
USA (a)(b)	* 4 000	* 4 000	* 4 000	* 4 000	* 4 000
Argentina	487	675	412	950	900
Brazil					
Amblygonite	156	185	489	434	450
Lepidolite	468	1 332	579	320	550
Petalite	3 697	968	1 028	1 996	1 000
Spodumene	792	413	112	885	100
China	* 9 000	* 9 000	* 10 000	* 10 000	* 10 000
World total (a)	* 6 000	* 6 000	* 5 500	* 5 700	* 5 600

(a) Li content

(b) Mostly spodumene

Lithium

Exports of Lithium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	1	0	1	1	0
Belgium-Luxembourg					
Lithium minerals	3 685	1 390	61	...	...
France					
Lithium minerals	—	421	24	...	...
Oxides	81	63	3	70	75
Germany, Federal Republic of					
Lithium minerals	186	505	1 307	...	...
Oxides	517	544	625	557	717
Metal	15	8	13	16	12
Netherlands					
Oxides (c)	50	53	133	221	302
Mozambique					
Lithium minerals (a)	* 1 000	—	* 1 000	...	...
South Africa					
Lithium minerals (a)	* 7 700	* 6 000	* 5 000	...	...
USA					
Lithium minerals, compounds & metal (b)	* 800	* 1 500	* 1 600	* 1 800	* 2 200
Argentina					
Lithium minerals	45	50	—	...	...
Brazil					
Lithium minerals	4 146	1 187	758	—	1 075

(a) IGS estimates, based on known imports into certain countries

(b) Li content

(c) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

Imports of Lithium

Country	1975	1976	1977	1978	1979
United Kingdom					
Oxides	...	356	460	427	611
Metal	2	3	3	2	3
Belgium-Luxembourg					
Lithium minerals	4 586	1 310	297	...	...
Oxides	150	91	159	135	159
Metal	5	—	0	10	6
France					
Lithium minerals	1 406	1 980	1 942	...	...
Oxides	515	383	435	485	520
Metal	7	5	22	19	4
Germany, Federal Republic of					
Lithium minerals	3 521	4 308	5 662	...	...
Oxides	459	343	727	469	464
Metal	26	17	18	17	9
Italy					
Lithium minerals	772	643	1 389	...	...
Oxides	233	150	389	260	385
Metal	14	4	2	26	0
Netherlands					
Oxides (a)	141	167	228	309	400
Spain					
Lithium minerals	271	92	435	313	416
Oxides	...	...	119	96	138
Metal	19	0	10	—	49
South Africa					
Lithium minerals	2 273	5 880	11 722	9 262	4 452
USA					
Lithium minerals	4 126	62	—	...	3 983

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Magnesite

Production of Magnesite

tonnes

Country	1975	1976	1977	1978	1979
Austria	1 265 849	926 540	1 003 041	982 320	1 103 649
Czechoslovakia	662 000	654 000	661 000	658 000	654 000
Greece	1 425 719	1 284 355	1 358 805	1 058 211	1 079 468
Poland	26 850	26 300	24 000	* 24 000	* 25 000
Soviet Union	* 1 800 000	* 1 800 000	* 1 850 000	* 1 900 000	* 1 950 000
Spain	130 530	133 923	161 869	128 627	* 180 000
Turkey	456 887	409 276	516 162	418 002	* 526 000
Yugoslavia	484 000	491 000	345 000	333 000	293 000
South Africa	61 202	62 858	49 219	37 407	65 336
Zimbabwe	99 360	95 051	54 204	65 756	84 495
Mexico	39 523	23 186	66 400	76 035	76 200
Brazil	173 705	195 877	205 719	217 000	217 000
Colombia	785	1 632	1 770	1 400	1 400
China	* 1 000 000	* 1 000 000	* 1 500 000	* 1 800 000	* 2 000 000
India	313 453	329 698	402 007	414 166	384 665
Iran (a)	16 000	5 000	* 5 000	* 5 000	...
Korea, Dem. P.R. of	* 1 500 000	* 1 500 000	* 1 500 000	* 1 500 000	* 1 500 000
Pakistan	2 351	3 309	1 269	* 1 852	* 2 800
Australia	16 208	14 706	18 531	21 350	28 136
New Zealand	791	805	557	840	—
World total (b)	9 500 000	9 000 000	9 700 000	9 600 000	10 200 000

(a) Years ended 20 March following that stated

(b) Excluding magnesite believed to be produced in Egypt, New Caledonia and USA, also Canada where magnesitic dolomite is produced

Exports of Magnesite

Country	1975	1976	1977	1978	1979
United Kingdom					
Crude	2 224	341	2 093	9 446	2 678
Calcined	46 161	41 785	48 165	10 412	5 777
Belgium-Luxembourg					
Crude	296	878	159	20	1 592
Calcined	1 563	3 069	3 159	3 514	3 070
France					
Crude	26	26	364	11	51
Calcined	490	435	187	1 679	514
Germany, Federal Republic of					
Crude	141	351	132	168	135
Calcined	7 593	5 279	11 146	16 259	13 314
Irish Republic	...	...	37 341	51 146	35 901
Italy					
Crude	78	86	98	302	285
Calcined	135	4 003	19 670	57 404	49 336
Netherlands					
Crude (a)	1 044	2 172	1 671	1 690	1 919
Calcined (a)	36 071	29 712	29 981	33 554	32 334
Austria					
Crude	1 669	3 262	2 585	1 263	607
Calcined	123 514	108 232	100 461	108 274	111 414
Czechoslovakia	398 000	364 000	367 000	382 000	377 000
Greece					
Crude	23 841	15 982	18 545	18 857	} 476 813
Calcined	369 567	338 546	338 827	348 099	
Norway	2	8	—	18 210	17 534
Spain					
Crude & calcined	87 360	74 621	92 936	79 029	93 459
Sweden	84	64	105	138	520
Switzerland					
Calcined	33	27	10	60	32
Turkey					
Crude	14 650	21 073	10 756	12 650	} 41 560
Calcined	63 648	34 523	60 378	56 336	
Yugoslavia					
Calcined	69 599	34 631	29 093	31 342	28 325
South Africa	£110 000	£70 000	£52 000	£44 000	£302 000
Brazil					
Calcined	40 237	27 919	63 788	56 219	104 399
Hong Kong					
Crude & calcined (Re-exports)	46	135	616	903	1 000
India					
Crude	20	109	3 849	...	...
Calcined	6 005	9 835	7 901	...	...
Israel (b)	20 811	21 266	24 384	20 948	...
Japan	324	405	5 299	17	20
Korea, Republic of					
Crude & calcined	4	450	2 100	...	...
Singapore	58	182	114	50	...
Australia	16 280	13 460	173	...	...

Notes:

- 1 So far as possible sea water magnesia has been excluded from this table if specifically identified in trade accounts
- 2 The term "calcined", as used here, includes dead-burned, sintered and caustic-burned material

(a) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

Magnesite

Imports of Magnesite

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Crude	15 343	2 198	3 656	8 241	9 750
Calcined	123 141	82 379	124 638	90 036	102 111
Belgium-Luxembourg					
Crude	701	1 229	1 612	888	864
Calcined	25 240	27 081	23 740	23 129	20 834
Denmark					
Crude	65	203	27	443	...
Calcined	10 813	9 607	9 607	18 431	...
France					
Crude	17 114	9 300	9 830	6 832	412
Calcined	57 477	63 333	71 073	77 906	94 488
Germany, Federal Republic of					
Crude	9 687	5 819	3 550	3 430	3 356
Calcined	393 657	341 312	332 710	314 334	373 291
Irish Republic	33 490	10 166	16 591	22 479	29 776
Italy					
Crude	8 286	6 933	5 780	6 390	8 496
Calcined	50 454	54 384	50 228	58 245	74 407
Netherlands					
Crude (a)	1 421	2 739	2 688	2 589	5 589
Calcined (a)	75 987	68 185	58 771	63 032	62 711
Austria					
Crude	15 119	13 608	3 375	454	2
Calcined	94 993	72 131	85 214	88 107	113 184
Finland	1 958	2 397	1 215	7 176	15 379
Greece					
Crude	500	2 575	2 757	210	} 457
Calcined	1 626	382	1 293	459	
Hungary					
Calcined	107 000	98 824	119 718	108 011	120 346
Norway	4 138	2 523	4 249	2 662	6 030
Poland					
Calcined	196 298	278 367	296 472	316 668	...
Portugal	1 291	594	919	729	...
Soviet Union					
Calcined	406 503	378 955	452 186	480 644	518 021
Spain					
Crude & calcined	61 950	42 362	50 307	49 070	53 822
Sweden	2 860	7 073	3 898	21 693	22 672
Switzerland					
Calcined	3 792	3 485	3 012	3 955	3 953
Yugoslavia					
Crude	10 009	9 695	6 874	6 531	2 232
Calcined	2 211	8 093	14 708	21 139	41 650
Algeria					
Crude	13	3	5	60	...
Calcined	203	313	417	376	...
Egypt	...	...	...	3 705	1 198
Morocco	132	291	204	125	109
Senegal	121	...	151	...	...
South Africa					
Crude & calcined	137 568	103 814	85 841	83 798	124 831
Tanzania	115	...	...	165	...
Zaire	446	859	268	228	...
Canada					
Calcined	87 562	42 627	54 028	65 285	88 909
Mexico					
Crude & calcined	9 045	15 034	18	4 392	...
USA					
Crude & calcined	147 017	87 318	74 070	85 944	90 285

Imports of Magnesite

Country	1975	1976	1977	1978	1979
Argentina					
Calcined	21 036	24 738	24 519	...	...
Brazil					
Crude & calcined	160	94	109	7	48
Peru					
Crude & calcined	2 735	19	1 364	...	...
Uruguay					
Crude & calcined	173	119	55	80	116
Venezuela					
Crude	540	332	627	28	...
Calcined	8 151	45	5 025	10 128	...
Brunei	—	1	35	350	...
Hong Kong	606	1 221	1 396	2 413	2 475
India	21	—	57	7 633	...
Indonesia	45	95	109	440	967
Israel	475	623	1 535	1 458	...
Japan					
Crude	2 668	2 448	5 567	11 302	25 292
Calcined	64 485	104 549	46 096	59 736	96 219
Malaysia	127	327	766	...	...
Philippines					
Crude & calcined	879	1 378	1 037	1 261	3 913
Singapore	43	59	97	180	...
Syria	175	—	35	33	...
Taiwan	311	852	1 145	750	4 272
Thailand					
Crude	3 998	4 356	5 081	5 181	...
Calcined	—	—	1 544	1 984	...
Australia					
Calcined	65	2 603	37	9 790	15 477
New Zealand (b)	2 326	3 149	1 088	976	4 617

Notes:

- 1 So far as possible sea water magnesia has been excluded from this table if specifically identified in trade accounts
- 2 The term "calcined", as used here, includes dead-burned, sintered and caustic-burned material

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Years ended 30 June of that stated

Manganese

Production of Manganese Ore

tonnes

Country		1975	1976	1977	1978	1979
Italy	(27%)	—	4 461	9 314	9 741	9 782
Austria (e)		72 768	70 595	64 734	51 351	58 969
Bulgaria	(28%)	35 000	40 000	* 40 000	* 40 000	* 40 000
Czechoslovakia (d)	(17%)	999	1 100	910	* 910	* 910
Greece	(50%)	8 294	6 730	8 860	7 000	5 750
Hungary	(30%)	131 000	125 000	119 700	114 000	126 230
Romania	(22%)	* 81 600	* 81 600	* 81 600	* 81 600	* 81 600
Soviet Union	(35%)	8 459 000	* 8 636 000	* 8 595 000	* 9 057 000	* 9 525 000
Turkey	(38%)	35 023	33 783	38 443	68 184	41 514
Yugoslavia	(34%)	17 000	19 000	24 750	27 000	30 000
Egypt	(35%)	3 581	4 256	3 509	154	—
Gabon	(50%)	2 245 000	2 217 000	1 918 000	1 718 000	* 2 000 000
Ghana	(40%)	408 742	312 000	305 967	321 000	* 340 000
Morocco	(50%)	130 947	117 304	113 585	126 222	135 187
South Africa						
Metallurgical	(40%)	5 683 503	5 354 387	4 876 365	4 179 995	4 952 920
Chemical	(55%)	85 529	97 871	171 590	137 049	229 423
Ferruginous	(20%)	111 703	50 964	242 155	95 699	—
Sudan	(48%)	...	465	457	450	* 455
Zaire	(48%)	307 859	182 185	249 492	—	21 183
Mexico	(36%)	* 428 500	* 452 800	* 486 622	* 523 200	* 500 000
USA (a)	(13%)	144 447	232 813	195 855	283 154	* 240 000
Argentina	(30%)	51 219	53 086	82 385	91 000	* 90 000
Brazil	(45%)	2 033 279	1 545 429	1 257 597	1 650 000	* 1 100 000
Chile	(38%)	20 016	23 639	18 002	23 243	24 969
Peru	(32%)	740	2 045	...	...	...
China	(30%)	* 1 000 000	* 1 000 000	* 1 000 000	* 1 000 000	* 1 200 000
India (f)	(35%)	1 605 000	1 835 000	1 865 000	1 619 000	1 755 000
Indonesia	(50%)	13 870	9 833	5 981	6 000	* 5 000
Iran (b)	(34%)	* 36 000	40 000	40 000	30 000	* 23 000
Japan	(35%)	101 822	142 885	127 387	105 629	* 91 000
Korea, Republic of	(40%)	3 160	1 383	664	747	35
Malaysia (d)		133 308	94 112	94 732	* 43 000	* 45 000
Philippines	(44%)	—	10 576	20 599	3 911	4 997
Thailand	(45%)	24 914	50 225	76 962	72 211	25 366
Australia	(48%)	1 554 909	2 154 167	1 389 004	1 289 994	1 666 000
Vanuatu	(42%)	39 817	31 444	34 293	19 288	5 694
World total (c)		25 000 000	25 000 000	23 600 000	22 800 000	24 400 000

Note: Estimated average manganese content is given in parentheses for each country, relating where possible to the later years

(a) Shipments of manganiferous iron ore only

(b) Years ended 20 March following that stated

(c) Excludes Cuba and Vietnam

(d) Manganiferous iron ore

(e) Mn content of domestic iron ore

(f) Includes ore grading 54% to less than 35% Mn

Exports of Manganese

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ore (a)	3 784	8 087	6 767	7 169	4 043
Metal	1 342	673	961	425	363
Belgium-Luxembourg					
Ore	8 886	9 507	9 888	11 324	6 107
France					
Ore (a)	4 509	9 225	8 323	5 606	7 092
Metal	3 832	3 308	1 945	2 138	2 325
Germany, Federal Republic of					
Ore (a)	3 474	4 919	6 983	2 089	1 946
Metal	161	205	101	31	59
Netherlands					
Ore	26 030	31 854	31 557	37 452	37 422
Metal (c)	1 099	2 241	2 101	2 768	2 083
Greece					
Ore	2 966	1 515	2 109	1	200
Hungary					
Ore	...	13 739	37 961	49 649	56 795
Norway					
Ore	2 730	420	950	—	1 287
Portugal					
Ore	—	14 005	4 993	4 000	2 050
Romania					
Ore	29 200	—	—	—	—
Soviet Union					
Ore	1 411 000	1 342 000	1 352 000	1 186 000	1 317 000
Sweden					
Ore	413	2 672	215	166	164
Metal	198	214	186	183	104
Turkey					
Ore	—	20	14 314	—	8 450
Yugoslavia					
Ore	5 415	1 611	3 070	—	922
Angola					
Ore	...	* 32 000	...	...	...
Gabon					
Ore	1 967 990	(e) * 1 754 500	(e) * 1 449 500	(e) * 1 152 000	(e) * 1 321 000
Ghana					
Ore	372 902	(e) * 355 500	(e) * 281 500	(e) * 253 000	(e) * 232 000
Morocco					
Ore	110 960	104 438	130 663	140 623	139 351
South Africa					
Ore (e)	* 3 700 000	* 3 300 000	* 2 600 000	* 2 500 000	* 3 500 000
Zaire					
Ore	115 081	306 000	192 000	...	...
Mexico					
Ore	199 069	179 165	257 213	198 509	...
USA					
Ore	203 530	173 547	157 754	219 105	59 848
Metal	3 013	4 237	3 905	5 701	6 062
Brazil					
Ore	1 557 703	1 072 697	560 110	894 458	1 187 311
China					
Ore (e)	* 46 300	* 39 700	* 51 400	* 45 400	* 45 400
India					
Ore (b)	793 359	714 438	554 375	577 292	...
Indonesia					
Ore	310 841	265 076	260 044	88 528	1 770
Iran (d)					
Ore	* 30 000	...	...	...	...
Japan					
Ore	3 976	6 128	5 206	4 831	6 230
Malaysia					
Ore	108 351	23 737	12 697	...	...

Manganese

Exports of Manganese

tonnes

Country	1975	1976	1977	1978	1979
Philippines					
Ore (a)	1 518	6 800	10 660	7 715	7 383
Singapore					
Ore	2 808	6 356	12 949	18 501	20 706
Thailand					
Ore	23 626	42 710	55 322	37 941	...
Australia					
Ore	1 132 470	1 711 008	810 794	1 301 000	1 157 000
Vanuatu					
Ore	46 250	45 208	...	...	...

(a) Includes manganiferous iron ore

(b) Includes ferruginous manganese ore

(c) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(d) Years ended 20 March following that stated

(e) IGS estimates, based on known imports into certain countries

Imports of Manganese

Country	1975	1976	1977	1978	1979
United Kingdom					
Ore (b)	253 201	498 869	327 784	260 853	544 220
Metal	4 308	4 318	3 946	2 824	3 072
Belgium-Luxembourg					
Ore	313 263	328 969	206 726	252 842	432 140
Metal	611	572	529	522	1 133
Denmark					
Ore	2 772	2 520	1 286	1 383	...
France					
Ore (b)	1 157 613	1 014 559	922 709	958 428	1 274 849
Metal	932	1 110	1 121	1 030	3 471
Germany, Federal Republic of					
Ore (b)	733 479	610 496	453 243	672 978	716 780
Metal	4 365	6 209	4 824	5 438	5 848
Irish Republic					
Ore	27 116	3 859	26 039	37 120	27 035
Italy					
Ore (b)	315 982	356 078	268 535	284 320	424 231
Metal	1 922	1 769	1 145	1 165	1 887
Netherlands					
Ore	47 330	45 654	81 242	73 223	89 268
Metal (a)	1 533	2 161	2 856	2 388	2 090
Austria					
Ore	479	573	643	520	433
Czechoslovakia					
Ore	456 000	448 000	1 324 000	526 000	541 000
Finland					
Ore	4	27 813	17 297	19 737	18 916
German Democratic Republic					
Ore (c)	74 200	79 700	81 700	73 400	...
Greece					
Ore	2 435	11 088	103	18 208	4 726
Hungary					
Ore	...	15 130	15 054	14 787	15 569
Norway					
Ore	1 072 944	982 384	591 350	803 130	815 148
Poland					
Ore	555 900	538 351	697 863	651 414	...
Portugal					
Ore	50 617	37 658	201 054	144 616	189 555
Spain					
Ore	437 378	410 151	433 184	369 679	487 333
Metal	487	649	449	266	351
Sweden					
Ore	35 149	40 101	9 424	3 290	14 111
Metal	4 422	2 621	1 371	917	1 259
Turkey					
Ore	4 852	3 130	760	1 978	2 214
Yugoslavia					
Ore	77 610	101 684	126 860	96 346	115 041
Metal	353	318	437	...	...
Ivory Coast					
Ore	497	720	802	1 078	1 103
Kenya					
Ore	639	1 056	1 672	1 595	3 199
South Africa					
Ore	830	3 112	4 906	3 339	29 843
Canada					
Ore (c)	69 773	118 972	57 644	136 449	45 151
Metal	5 390	6 553	6 850	7 939	8 275
USA					
Ore (d)	1 427 950	1 194 592	844 541	496 974	453 395
Metal	3 982	6 425	6 206	8 327	6 108
Argentina					
Ore	77 600	67 263	121 416	...	...

Manganese

Imports of Manganese

tonnes

Country	1975	1976	1977	1978	1979
Brazil					
Ore	17 682	18 276	65 997	152 276	101 395
Metal	308	515	797	746	1 104
Hong Kong					
Ore	620	547	554	515	1 000
India					
Ore	5 430	190	5 048	4 045	...
Metal	112	88	217	167	...
Indonesia					
Ore	4 802	4 826	7 940	8 605	6 966
Japan					
Ore	3 740 461	3 356 101	2 753 503	2 011 670	2 692 042
Korea, Dem. P.R. of					
Ore	* 20 000	...	...	...	...
Korea, Republic of					
Ore	45 550	111 743	67 003	...	...
Malaysia					
Ore	1 047	2 027	2 410	...	...
Philippines					
Ore (b)	2 571	3 216	9 501	6 982	3 456
Singapore					
Ore	23 709	18 293	21 820	44 980	33 517
Taiwan					
Ore	79 371	41 310	64 293	96 254	148 013
Thailand					
Ore	185	4 838	3 686	1 646	...
Australia					
Ore	179	1 120	2 421	2 962	119
Metal	778	1 307	842	1 209	957

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Includes manganiferous iron ore

(c) Mn content

(d) Over 35% Mn

Production of Mercury

Country	1975	1976	1977	1978	1979
Germany, Federal Republic of	...	110 000	99 000	84 000	86 000
Irish Republic	11 000	—	—	...	0
Italy	1 092 000	768 000	14 351	2 725	—
Czechoslovakia	204 000	191 000	183 000	196 000	171 000
Finland	10 654	13 186	21 718	39 477	46 500
Soviet Union	* 1 898 000	* 1 932 000	* 2 000 000	* 2 070 000	* 2 105 000
Spain	1 621 569	1 384 140	931 845	1 069 949	1 208 000
Turkey	183 096	168 884	161 529	173 062	* 173 000
Yugoslavia	584 000	431 000	108 000	—	—
Algeria	974 400	1 067 000	1 035 000	1 034 000	* 1 035 000
Canada	413 676	—	—	—	—
Mexico	490 000	518 000	333 000	76 000	* 170 000
USA	253 928	797 464	973 657	833 868	1 011 542
Chile	3 344	448	684	—	—
Peru	52 739	—	—	—	—
China	* 900 000	* 900 000	* 700 000	* 700 000	* 700 000
Philippines	8 414	—	—	—	—
Australia	210	140	50	—	—
World total	8 800 000	8 300 000	6 600 000	6 300 000	6 700 000

Mercury

Exports of Mercury

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom	54 500	38 741	45 692	51 092	137 320
Belgium-Luxembourg	57 900	34 000	43 400	56 000	17 800
France	2 000	39 000	42 000	122 000	132 000
Germany, Federal Republic of	58 300	70 300	58 000	76 000	80 800
Italy	1 705 200	1 426 507	355 000	773 000	327 900
Netherlands (a)	43 000	79 000	64 000	62 000	101 000
Austria	13 100	12 400	7 800	28 200	15 100
Finland	4 200	6 300	11 600	13 900	21 000
Norway	—	0	0	39 000	47 000
Spain	649 000	801 000	773 069	1 480 000	1 303 000
Sweden	4 000	16 000	54 000	26 000	19 000
Switzerland	3 336	1 083	1 252	2 048	6 005
Turkey	3 296	108 429	196 611	295 625	83 000
Yugoslavia	289 632	289 632	48 272	...	...
Algeria	296 625	51 923	271 404	406 410	...
Tunisia	...	—	6	—	...
Mexico	396 563	296 960	478 130	216 428	...
USA	17 003	17 660	32 877	* 35 000	* 35 000
Peru	34 900	...	...	...	...
China (b)	* 150 000	* 137 000	* 229 000	* 163 600	* 164 000
Japan	66 276	42 166	79 256	238 847	539 922
Singapore	459	4 125	1 921	1 249	776

(a) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(b) IGS estimates, based on known imports into certain countries

Imports of Mercury

Country	1975	1976	1977	1978	1979
United Kingdom	734 329	407 550	303 168	421 567	306 392
Belgium-Luxembourg	308 900	72 700	94 800	96 000	120 300
Denmark	14 100	19 900	6 600	14 000	...
France	268 000	221 000	212 000	182 000	138 000
Germany, Federal Republic of	264 500	686 900	244 500	434 100	461 300
Irish Republic	3 100	4 100	3 300	32 900	4 700
Italy	8 600	26 353	20 000	20 000	80 000
Netherlands (d)	94 000	104 000	42 000	85 000	120 000
Austria	61 700	34 200	13 100	14 300	23 800
Finland	48 000	20 200	9 700	10 900	3 000
Greece	14 000	1 000	4 211	9 102	3 000
Norway	9 000	14 000	5 000	1 000	1 000
Poland	261 000	...	...	...	...
Portugal	15 400	43 800	28 100	34 700	28 000
Sweden	51 000	74 000	11 000	25 000	24 000
Switzerland	25 332	21 311	24 587	24 201	25 183
Yugoslavia	58 000	15 006	2 012	7 946	10 372
Algeria	43 687	5 021	286	2 112	...
Madagascar	100	228	208	2 065	40
Morocco	1 653	597	2 123	4 355	7 213
South Africa	81 700	39 500	67 700	71 900	53 300
Tunisia	13 147	524	21 829	3 559	...
Zaire	1 000	—	1 000	...	...
Canada	73 527	62 641	21 909	43 046	50 000
USA	1 533 075	1 529 407	991 101	1 528 131	1 002 642
Argentina	39 745	82 755	67 812	...	...
Brazil	165 832	178 705	151 476	144 361	158 448
Uruguay	...	1 600	1 800	1 200	300
Venezuela	15 723	16 542	51 572	20 169	...
Burma	...	...	...	...	...
Hong Kong	32 039	93 855	23 967	53 380	74 221
India	242 000	329 000	334 000	74 000	...
Indonesia	23 578	5 688	9 974	22 515	3 628
Iran (b)	27 076	22 600	...	...	...
Iraq	19 225	5 172	...	...	...
Israel (a)	1 000	1 000	—	3 000	...
Japan	88 476	77 299	89 447	105 697	108 350
Korea, Republic of	31 725	42 075	41 065	...	...
Malaysia	39 672	12 823	7 000	...	...
Philippines	5 492	29 966	35 395	26 039	11 552
Singapore	235	9 661	333	4 188	4 002
Syria	202	705	4 205	1 023	...
Taiwan	123 179	54 407	54 338	91 859	56 678
Thailand	2 117	7 448	8 455	5 829	...
Australia	55 616	44 736	43 899	75 941	47 990
New Zealand (c)	2 601	2 521	3 000	1 624	...

(a) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(b) Years ended 20 March following that stated

(c) Years ended 30 June of that stated

(d) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Mica

Production of Mica

tonnes

Country	1975	1976	1977	1978	1979
France	* 4 000	* 4 000	* 4 000	7 300	7 100
Norway (b)	6 165	(a) 3 100	(a) 2 800	(a) 2 700	2 915
Soviet Union	* 42 000	* 43 000	* 44 000	* 45 000	* 46 000
Spain	527	3 876	2 934	3 345	...
Yugoslavia	86	68	139	69	* 140
Madagascar					
Phlogopite (c)	544	69	80	1 567	1 168
Mozambique	900	* 900	* 800	* 800	* 900
South Africa					
Waste	2 511	2 380	2 890	2 542	1 720
Tanzania					
Sheet	6	10	4	6	* 5
Zimbabwe	5 945	1 832	3 670	2 764	1 275
Mexico	620	1 303	771	401	408
USA (d)					
Waste (e)	122 091	127 652	159 555	165 000	* 164 000
Argentina					
Sheet	412	329	302	311	295
Waste	2 490	2 291	1 840	1 985	2 000
Brazil (a)	1 100	2 799	1 955	4 553	4 075
India					
Crude	11 501	9 485	9 352	9 592	8 896
Waste	...	4 305	5 319	4 681	4 926
Sri Lanka	2 504	36	...	140	369
Taiwan	292	448	1 334	1 388	1 150
World total (f)	209 000	208 000	242 000	254 000	250 000

(a) Exports

(b) Crude only

(c) Block and splittings

(d) Sold or used by producers

(e) Including mica recovered from mica schists and kaolin beneficiation

(f) Other countries known to produce mica include Canada, China, Romania and Namibia

Exports of Mica

Country	1975	1976	1977	1978	1979
United Kingdom					
Unmanufactured	84	225	476	810	966
Ground & waste	1 519	2 275	3 113	2 540	3 911
Belgium-Luxembourg					
Unmanufactured	70	322	24	52	22
Ground	38	54	91	43	138
France					
Unmanufactured	103	62	71	46	173
Ground	2 643	3 080	2 869	3 074	3 111
Germany, Federal Republic of					
Unmanufactured	47	14	11	68	25
Ground	721	910	743	709	618
Italy					
Unmanufactured	135	58	76	133	191
Ground	365	1 026	981	666	471
Netherlands					
Unmanufactured	1 137	527	831	713	1 230
Austria					
Unmanufactured	9	15	12	57	185
Norway					
Unmanufactured	3 577	3 083	2 818	2 688	2 915
Portugal					
Unmanufactured	—	498	138	360	232
Spain					
Unmanufactured	1 027	2 042	738	2 900	3 939
Sweden					
Unmanufactured	13	4	3	5	10
Switzerland					
Unmanufactured	44	92	66	73	46
Madagascar					
Unmanufactured	1 315	841	204	316	1 205
Mozambique					
Unmanufactured	801	515	200	...	...
South Africa					
Ground	2 542	932	343	1 994	1 316
Waste	510	244	58	571	—
Tanzania					
Unmanufactured	7	7	7	6	2
USA					
Unmanufactured	5 070	6 667	8 356	8 693	10 673
Argentina					
Unmanufactured	223	1 367	3 884	...	...
Brazil					
Unmanufactured	1 100	2 799	1 955	4 553	4 075
India					
Block	574	882	1 071	1 329	...
Splittings	3 482	3 546	3 797	3 917	...
Condenser films	126	146	66	54	...
Ground	7 878	9 238	7 505	8 518	...
Waste	22 457	8 055	10 301	9 368	...
Japan					
Unmanufactured	123	162	144	303	246
Korea, Republic of					
Unmanufactured	1 900	1 057	1 719	...	...
Singapore					
Unmanufactured	312	150	79	14	110
Sri Lanka					
Waste	...	162	146	...	...

Note: In this table the term 'Unmanufactured' includes sheet, block, splittings, ground and waste, unless these are separately specified. Mica powder is included under the term 'ground'

Mica

Imports of Mica

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Block	165	205	92	98	69
Splittings	543	350	469	462	289
Ground & waste	9 578	11 304	12 592	14 778	17 561
Belgium-Luxembourg					
Unmanufactured	5 940	266	3 076	2 526	621
Ground	1 094	1 768	1 039	1 104	1 183
Denmark					
Unmanufactured	247	274	226	255	...
France					
Unmanufactured	8 706	3 316	2 672	9 171	2 701
Ground	544	922	942	993	717
Germany, Federal Republic of					
Unmanufactured	4 490	4 631	4 741	6 691	5 563
Ground	3 518	3 427	3 381	3 038	3 068
Irish Republic					
Unmanufactured	189	240	202	594	847
Italy					
Unmanufactured	494	320	552	512	456
Ground	461	833	103	735	568
Netherlands					
Unmanufactured	42	22	261	52	57
Ground	1 611	2 193	1 552	1 866	2 094
Austria					
Unmanufactured	257	296	313	340	250
Finland					
Unmanufactured	231	245	273	246	291
German Democratic Republic	2 250	2 779	1 116	1 767	...
Greece					
Unmanufactured	118	47	124	117	173
Norway					
Unmanufactured	280	202	89	147	94
Waste	3 878	2 585	2 322	1 825	1 991
Poland					
Unmanufactured	1 763	1 152	1 902	1 641	...
Portugal					
Unmanufactured	314	448	393	399	469
Soviet Union					
Unmanufactured	498	* 500	* 500	* 550	* 550
Spain					
Unmanufactured	892	1 041	1 153	837	1 030
Sweden					
Unmanufactured	589	534	366	345	467
Switzerland					
Unmanufactured	493	657	544	638	598
Turkey					
Unmanufactured	104	123	76	52	45
Yugoslavia					
Unmanufactured	396	315	523	541	1 134
Kenya					
Unmanufactured	21	14	25	34	33
Morocco					
Ground	3	23	18	19	15
South Africa					
Unmanufactured	423	775	559	567	688
Mica & micanite sheets	50	58	43	44	62
Tanzania					
Unmanufactured	19	18	16	16	...
Tunisia					
Unmanufactured	26	68	249	28	...

Imports of Mica

Country	1975	1976	1977	1978	1979
Canada					
Unmanufactured	5 111	4 696	6 309	3 492	3 130
Costa Rica					
Unmanufactured	17	19	2	...	...
Guatemala					
Unmanufactured	9	59	35	...	...
Jamaica					
Unmanufactured	165	143	98	138	...
Mexico					
Unmanufactured	21	149	191	61	...
Waste	9	54	3	—	...
Trinidad & Tobago					
Unmanufactured	39	110	137	174	...
USA					
Block	112	158	210	112	110
Splittings	1 719	776	971	1 740	1 776
Ground	92	248	132	1 568	4 112
Waste	4 841	1 911	1 065	554	80
Other unmanufactured	300	593	782	2 164	2 888
Argentina					
Unmanufactured	48	20	15	...	...
Brazil					
Unmanufactured	2	4	1	6	99
Venezuela					
Unmanufactured	412	282	898	869	...
Brunei					
Unmanufactured	106	152	5	11	...
Hong Kong					
Unmanufactured	28	61	51	31	585
Indonesia					
Unmanufactured	208	418	270	339	105
Iran (a)					
Unmanufactured	2 733	2 291	...	...	...
Japan					
Block	99	2 234	185	272	209
Splittings	166	400	635	527	621
Waste	2 597	4 209	4 307	4 092	611
Other unmanufactured	3 466	2 480	4 279	3 707	3 011
Korea, Republic of					
Unmanufactured	176	151	102	...	...
Malaysia					
Unmanufactured	19	141	56	...	...
Philippines					
Unmanufactured	81	38	133	87	61
Saudi Arabia					
Unmanufactured	1 039	189	880	...	...
Singapore					
Unmanufactured	878	389	704	270	170
Taiwan					
Unmanufactured	109	108	119	153	160
Ground	110	199	144	282	364
Thailand					
Unmanufactured	34	44	78	91	...

Mica

Imports of Mica

tonnes

Country	1975	1976	1977	1978	1979
Australia					
Unmanufactured	231	415	387	203	292
Ground	340	555	701	277	335
New Zealand (b)					
Unmanufactured	£40 600	£76 500	£37 700	£50 000	£70 000

Note: In this table the term 'Unmanufactured' includes sheet, block, splittings, ground and waste, unless these are separately specified. Mica powder is included under the term 'ground'

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

Mine Production of Molybdenumtonnes (MoS₂ content or equivalent)

Country	1975	1976	1977	1978	1979
Bulgaria	* 230	* 230	* 250	* 250	* 250
Soviet Union	* 15 100	* 15 600	* 16 200	* 16 500	* 17 000
Canada	21 712	24 365	27 613	23 238	18 645
Mexico	28	27	2	18	38
USA	80 100	85 603	92 538	99 747	108 837
Chile	15 152	18 165	18 230	21 993	22 600
Peru	739	755	772	1 215	1 360
China	* 2 500	* 2 500	* 2 500	* 3 000	* 3 000
Japan	234	408	337	241	* 250
Korea, Republic of	126	200	169	367	315
World total (a)	136 000	148 000	159 000	167 000	172 000

(a) Excluding molybdenum ore known to be produced in other countries including Korea Dem. P.R., Nigeria, Philippines and Romania

Molybdenum

Exports of Molybdenum

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	1 705	1 442	3 471	3 921	4 301
Oxides	757	1 557	215	552	381
Metal	128	121	144	147	332
Belgium-Luxembourg					
Ores & concentrates	3 964	6 542	4 338	5 872	5 945
Oxides	56	31	30	117	105
Metal	122	49	77	121	177
France					
Ores & concentrates	—	10	162	336	395
Oxides	48	273	245	34	22
Metal	83	145	93	136	166
Germany, Federal Republic of					
Ores & concentrates	654	631	1 173	1 117	6 669
Metal	199	259	217	236	391
Italy					
Ores & concentrates	56	—	459	269	184
Oxides	—	10	84	177	95
Netherlands					
Ores & concentrates (b)(c)	21 074	21 259	22 850	24 239	23 363
Metal	191	137	187	153	185
Oxides (b)	770	1 576	1 609	1 621	1 445
Austria					
Metal	569	763	922	872	1 101
Sweden					
Ores & concentrates	884	730	1 241	921	1 206
Metal	10	11	154	13	11
Canada					
Ores & concentrates (a)	15 689	14 554	15 310	15 144	11 483
USA					
Ores & concentrates (a)	28 401	28 352	29 786	31 422	32 789
Metal	435	352	517	776	1 097
Peru					
Ores & concentrates	1 014	814	1 061	...	...
Japan					
Metal	16	18	43	40	71
Korea, Republic of					
Ores & concentrates	52	50	90	...	...
Philippines					
Ores & concentrates	32	—	11	19	210

(a) Mo content

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(c) May include other ores

Imports of Molybdenum

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	13 528	13 617	13 934	14 383	15 285
Oxides	149	57	159	413	284
Metal	167	133	162	224	274
Belgium-Luxembourg					
Ores & concentrates	13 175	11 909	12 517	13 381	15 856
Oxides	61	22	64	331	28
Metal	78	110	118	332	189
France					
Ores & concentrates	7 138	7 633	7 314	6 963	7 413
Oxides	136	75	55	359	119
Metal	183	168	149	114	206
Germany, Federal Republic of					
Ores & concentrates	14 736	41 674	17 987	19 203	22 065
Oxides	129	125	309	457	515
Metal	365	482	533	640	797
Italy					
Ores & concentrates	6 229	5 397	5 645	5 638	5 866
Oxides	84	196	623	819	619
Metal	91	260	188	176	240
Netherlands					
Ores & concentrates (b)	25 000	24 000	27 000	27 644	27 944
Metal	172	201	208	153	235
Austria					
Oxides	688	1 421	1 489	1 375	1 639
Metal	9	5	44	87	366
Finland					
Ores & concentrates	78 270	79	269	40 111	512
Metal	3	74	91	2	4
Sweden					
Ores & concentrates	7 052	7 477	5 305	6 484	7 927
Metal	74	50	84	75	69
Yugoslavia					
Metal	16	10	12	18	16
South Africa					
Metal	24	18	19	17	32
Canada					
Oxides	56	111	192	330	370
Mexico					
Ores & concentrates	874	589	459	710	...
USA					
Ores & concentrates (a)	1 164	949	897	1 227	1 056
Metal	40	197	1 022	246	238
Argentina					
Oxides	84	152	348	...	...
Brazil					
Ores & concentrates	1 063	1 413	2 169	2 874	8 535
India					
Metal	44	106	14	32	...
Japan					
Ores & concentrates	12 128	17 916	16 495	16 645	18 431
Oxides	90	482	498	497	613
Metal	106	84	113	184	182
Malaysia					
Metal	18	13	8	...	...
Philippines					
Metal	62	3	169	60	71
Singapore					
Metal	27	2	11	8	0
Taiwan					
Metal	6	6	27	41	48
Australia					
Ores & concentrates	213	91	309	...	...

(a) Mo content

(b) May include other ores

Nickel

Mine Production of Nickel

tonnes (metal content)

Country	1975	1976	1977	1978	1979
Albania	* 6 500	* 7 000	* 7 500	* 8 000	* 8 000
Finland	5 700	6 400	5 810	4 377	5 510
German Democratic Republic	2 400	2 500	2 500	2 700	2 500
Greece (d)	14 800	16 448	9 610	15 100	14 632
Norway	304	400	500	500	* 600
Poland	* 2 500	* 2 800	* 2 800	* 2 800	* 2 100
Soviet Union	* 125 000	* 130 000	* 135 000	* 140 000	* 150 000
Botswana	6 467	12 581	12 099	16 049	16 173
Morocco	* 500	* 200	* 200	* 100	* 500
South Africa (a)	20 754	22 371	21 955	* 22 500	* 29 500
Zimbabwe	9 121	13 616	16 671	15 701	14 591
Canada (b)	242 180	240 825	232 512	128 310	131 579
Cuba (c)	37 300	37 021	36 750	34 787	32 324
Dominican Republic (d)	26 900	24 400	24 905	14 302	25 400
USA	15 410	14 940	13 015	12 255	13 667
Brazil	3 190	5 273	4 241	3 600	3 500
Burma (e)	19	24	17	18	...
Indonesia	14 600	13 800	16 100	30 200	37 200
Philippines	9 364	15 239	36 781	29 528	28 762
Australia	75 825	82 532	85 868	82 359	73 600
New Caledonia (f)	133 282	118 945	115 755	66 145	82 900
World total	752 000	767 000	781 000	629 000	673 000

(a) Refined nickel and nickel in matte

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

(c) Ni and Co content of sulphide slurry and oxide

(d) Ni content of ferro-nickel

(e) Ni content of nickel speiss. Years ended 31 March following that stated

(f) Includes Ni content of ores, nickel matte and ferro-nickel

Exports of Nickel

Country	1975	1976	1977	1978	1979
United Kingdom					
Mattes, sinters etc.	774	72	445	265	1 383
Unwrought	29 928	28 100	24 487	19 002	13 518
Unwrought alloys	1 598	1 553	1 834	1 411	1 348
Scrap	4 065	5 550	6 552	3 392	4 341
Oxides	901	380	228	220	252
Belgium-Luxembourg					
Unwrought	321	99	60	90	290
Unwrought alloys	132	152	222	243	116
Scrap	1 037	1 603	1 309	1 219	1 656
Denmark					
Scrap	122	131	130	52	...
France					
Mattes, sinters etc.	34	402	211	850	2 754
Unwrought	5 196	4 398	4 769	5 324	4 404
Unwrought alloys	40	71	220	536	774
Scrap	1 744	2 746	2 429	2 454	2 708
Oxides	486	690	810	521	1 033
Germany, Federal Republic of					
Mattes, sinters, etc.	—	—	17	7	1 332
Unwrought	1 978	1 328	5 573	2 760	8 246
Unwrought alloys	133	74	1 242	2 416	3 091
Scrap	3 013	5 682	8 025	7 150	8 381
Oxides	52	129	103	290	147
Italy					
Unwrought (a)	41	101	262	100	226
Scrap	6	215	179	161	299
Netherlands					
Mattes, sinters etc.	} 4 037	3 764	681	2 568	4 034
Unwrought (a)			1 968	3 246	3 816
Scrap	2 461	3 933	1 795	1 845	2 071
Oxides	38	83	137	273	488
Austria					
Scrap	438	973	367	42	471
Finland					
Unwrought	(a) 5 862	6 143	7 928	5 882	(f) 10 264
Norway					
Ore	6 885	12 522	14 222	12 212	12 692
Unwrought	29 489	34 071	20 732	40 854	33 088
Scrap	354	394	453	562	994
Soviet Union					
Unwrought (b)	* 14 000	* 12 400	* 10 900	* 21 400	* 25 600
Spain					
Scrap	461	652	439	359	302
Sweden					
Mattes, sinters etc.	—	51	358	798	64
Unwrought (a)	2 902	2 382	2 449	1 720	1 640
Scrap	714	845	831	498	482
Switzerland					
Unwrought, mattes, sinters, etc. & scrap	463	594	476	245	679
Yugoslavia					
Scrap	...	446	301	289	210
South Africa (b)					
Mattes, sinters etc.	* 5 000	* 4 500	* 4 400	* 7 900	* 10 100
Unwrought	* 14 900	* 17 600	* 16 600	* 24 600	* 26 500
Canada					
Ores, concentrates, mattes, sinters etc. (c)	84 391	72 688	80 546	39 078	42 736
Unwrought	100 370	99 241	79 039	107 256	85 357
Scrap	3 322	2 510	2 208	2 308	2 401
Oxides (c)	38 527	47 958	35 005	27 792	17 191
Cuba					
Oxides (e)	12 885	15 956	24 825	} * 37 000	...
Sulphide (e)	17 998	18 678	19 015		

Nickel

Exports of Nickel

tonnes

Country	1975	1976	1977	1978	1979
Dominican Republic					
Ferro-nickel	63 067	68 139	59 946	50 007	64 500
USA					
Unwrought (a)	6 157	13 284	13 844	11 332	20 650
Scrap	6 468	14 493	7 665	4 238	9 241
Indonesia					
Ore	639 020	565 357	640 631	576 377	781 881
Mattes, sinters etc	—	—	2 830	15 627	29 280
Japan					
Unwrought (a)	1 478	2 340	3 914	2 989	1 752
Philippines					
Ores & concentrates	225	—	488 597	578 034	704 299
Unwrought (a)	6 298	11 030	15 861	12 016	14 791
Taiwan					
Unwrought	93	275	188	152	41
Scrap	202	639	364	349	641
Australia (d)	* 43 000	* 62 000	* 62 600	* 61 400	* 61 000
New Caledonia					
Ores	2 466 429	2 692 729	2 604 354	1 540 093	2 142 152
Mattes, sinters etc.	25 082	27 830	31 314	21 752	* 17 200
Ferro-nickel	168 542	124 180	124 325	98 984	* 175 000

Note: In this table the description 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 2) which excludes all electro-plating anodes

(a) Including alloys

(b) IGS estimates, based on known imports into certain countries

(c) Ni content

(d) IGS estimates; Unwrought metal and Ni content of ores, concentrates, matte etc., based on known imports into certain countries

(e) Ni-Co content (mainly nickel)

(f) Including matte and speiss

Imports of Nickel

Country	1975	1976	1977	1978	1979
United Kingdom					
Mattes, sinters etc.	66 876	54 382	61 418	31 693	27 882
Unwrought	21 685	18 609	20 009	15 535	17 083
Unwrought alloys	2 246	2 130	1 506	1 274	876
Scrap	2 688	4 199	3 476	2 772	3 078
Oxides	1 880	667	451	700	341
Belgium-Luxembourg					
Mattes, sinters etc.	88	83	267	401	177
Unwrought	2 601	2 348	1 443	2 492	3 680
Unwrought alloys	894	1 091	148	573	570
Scrap	1 059	1 171	1 376	1 072	754
Oxides	65	132	137	137	402
Denmark					
Unwrought	153	166	128	152	...
Unwrought alloys	109	46	51	45	...
France					
Mattes, sinters etc.	15 203	16 730	20 427	12 986	10 500
Unwrought	15 994	15 370	10 648	12 177	16 005
Unwrought alloys	1 036	673	1 489	2 566	3 833
Scrap	1 537	1 499	1 340	719	1 444
Oxides	212	190	177	226	141
Germany, Federal Republic of					
Mattes, sinters etc.	6 550	13 820	16 136	16 465	15 746
Unwrought (a)	36 387	43 080	36 422	38 881	47 708
Scrap	6 454	7 408	4 636	4 003	6 505
Oxides	340	569	487	595	612
Irish Republic					
Unwrought (a)	433	141	149	284	108
Italy					
Mattes, sinters etc.	4 907	5 426	5 552	7 202	5 727
Unwrought	6 101	6 839	10 184	11 374	15 061
Unwrought alloys	966	1 102	1 250	859	1 534
Scrap	833	1 450	970	299	313
Oxides	1 897	3 070	1 900	3 720	3 755
Netherlands					
Mattes, sinters, etc. (e)	384	446	697	3 224	4 267
Unwrought (e)	4 255	3 095	2 264	3 975	4 949
Unwrought alloys (e)	139	64	178	79	129
Scrap	2 396	1 576	2 245	728	875
Oxides	465	579	825	887	725
Austria					
Mattes, sinters etc.	904	1 165	1 278	1 362	1 533
Unwrought (a)	1 904	2 255	2 288	2 401	2 849
Scrap	1 056	902	2 767	262	1 504
Finland					
Ore	10 276	12 876	13 193	14 275	14 798
Mattes, sinters etc.	5	1 030	2 191	2 249	7 170
Unwrought (a)	297	558	1 093	2 297	2 846
Scrap	86	327	1 749	925	1 176
Norway					
Ore	51	188	376	—	89
Mattes, sinters etc.	79 337	71 329	71 330	54 429	78 897
Unwrought (a)	83	685	220	65	85
Scrap	—	—	3	573	1
Spain					
Mattes, sinters etc.	4 809	7 785	10 888	9 109	8 413
Unwrought (a)	185	173	131	253	161
Sweden					
Mattes, sinters etc.	2 989	4 651	2 438	5 249	3 475
Unwrought	13 105	10 921	7 928	8 138	11 257
Unwrought alloys	433	347	295	285	358
Scrap	1 960	3 464	2 322	2 002	2 713
Switzerland					
Unwrought, mattes, sinters, etc. & scrap	1 899	2 321	1 539	1 520	1 806
Yugoslavia					
Unwrought	1 282	1 207	1 915	1 487	1 507

Nickel

Imports of Nickel

tonnes

Country	1975	1976	1977	1978	1979
South Africa					
Mattes, sinters etc.	375	321	1 653	909	362
Unwrought	718	951	742	2 394	651
Scrap	—	51	300	236	37
Canada					
Ore, concentrates & scrap (b)	17 894	24 566	32 815	31 879	21 176
Unwrought (a)	13 369	17 308	2 988	4 018	4 355
Mexico					
Unwrought	2 699	1 428	2 997	2 874	...
Oxides	116	309	249	394	...
USA					
Ore (b)	16	155	3	—	—
Slurry (b)	16 511	22 722	16 855	33 017	26 692
Unwrought (a)	98 507	101 157	94 629	136 160	101 530
Scrap	2 135	2 140	2 880	3 351	3 262
Argentina					
Unwrought	480	415	650	...	...
Brazil					
Unwrought (a)	1 499	1 894	2 310	3 016	4 579
Hong Kong					
Unwrought	289	526	727	1 943	2 248
India					
Unwrought (c)	1 831	3 391	3 371	3 774	...
Unwrought alloys (c)	676	1 235	703	639	...
Scrap (c)	221	852	1 586	3 323	...
Japan					
Ore	3 396 775	3 450 189	3 951 141	2 999 406	4 014 772
Mattes, sinters etc.	27 442	45 245	41 008	30 044	43 257
Unwrought	8 451	11 986	11 046	10 603	19 263
Unwrought alloys	188	277	154	287	456
Scrap	1 535	4 737	3 883	3 522	1 948
Korea, Republic of					
Unwrought	541	1 583	653	...	...
Scrap	159	226	104	...	...
Malaysia					
Unwrought (a)	227	239	178	...	...
Taiwan					
Unwrought (a)	233	968	1 457	4 188	2 324
Australia					
Mattes, sinters etc.	528	1 931	3 380	1 502	2 930
Unwrought	726	1 436	677	3 065	750
Unwrought alloys	543	172	353	172	110
New Zealand (d)					
Unwrought (a)	105	38	6	100	38

Note: In this table the description 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 2) which excludes all electro-plating anodes

(a) Including alloys

(b) Ni content

(c) Years ended 31 March following that stated

(d) Years ended 30 June of that stated

(e) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Production of Crude Petroleum

thousand tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 222	11 632	37 420	52 932	76 596
Denmark	167	199	514	430	421
France	1 028	1 058	1 037	1 117	1 200
Germany, Federal Republic of	5 741	5 524	5 401	5 059	4 774
Italy	1 118	1 109	1 083	1 452	1 682
Netherlands	1 419	1 371	1 382	1 402	1 316
Albania	2 300	2 350	* 2 300	* 2 300	...
Austria	2 037	1 931	1 787	1 790	1 726
Bulgaria	122	117	129	130	...
Czechoslovakia	142	131	123	117	108
German Democratic Republic	56	53	67	50	...
Hungary	2 006	2 142	2 191	2 198	2 027
Norway	9 241	13 799	13 554	16 957	18 822
Poland	553	455	364	363	331
Romania	14 590	14 700	14 650	13 724	12 323
Soviet Union	490 801	519 677	545 799	571 531	586 000
Spain	2 028	1 772	989	979	...
Turkey	3 095	2 568	2 714	2 735	* 3 000
Yugoslavia	3 692	3 880	3 951	4 076	4 143
Algeria	45 788	50 123	52 400	58 400	60 500
Angola	8 750	5 400	8 665	6 635	...
Congo	1 789	2 002	1 678	2 570	2 784
Egypt	11 734	16 568	21 300	24 400	26 000
Gabon	11 316	11 325	11 267	11 335	10 000
Libya	70 930	92 887	99 500	94 700	98 700
Morocco	20	8	22	24	...
Nigeria	95 816	102 302	103 381	93 424	113 694
Tunisia	4 609	3 710	4 304	4 944	5 536
Zaire	3	1 259	1 215	916	1 057
Canada	75 534	69 397	69 891	69 647	81 480
Cuba	226	235	256	288	288
Mexico	36 456	41 256	50 392	62 127	* 75 000
Trinidad & Tobago	11 411	11 274	12 137	12 160	11 357
USA	412 076	401 211	405 671	428 425	419 864
Argentina	20 119	20 437	22 075	22 957	24 500
Bolivia	1 822	1 837	1 568	1 465	1 260
Brazil	9 383	9 127	8 809	8 800	* 9 000
Chile	1 298	1 215	1 033	911	1 097
Colombia	8 311	7 747	7 286	6 929	6 537
Ecuador	8 528	9 922	9 725	10 690	* 11 000
Peru	3 829	3 716	4 427	7 342	9 500
Venezuela	122 400	120 170	117 189	113 628	124 106
Abu Dhabi	66 628	77 687	79 700	69 282	...
Bahrain	3 050	2 902	2 895	2 637	2 496
Brunei	* 9 350	10 004	10 540	11 146	12 257
Burma (d)	1 029	1 246	1 387	1 524	...
China (a)	* 75 000	* 85 000	93 640	104 050	...
Dubai	12 762	15 776	15 901	* 18 500	...
India	8 283	8 430	10 185	11 270	12 841
Indonesia	64 896	74 894	83 712	81 206	79 100
Iran	264 946	294 200	282 230	257 877	151 400
Iraq	110 952	112 284	111 000	128 750	168 000
Israel (b)	3 969	38	28	24	22
Japan	643	616	689	631	* 600
Kuwait	104 769	113 965	104 233	107 022	132 240
Malaysia	4 683	8 026	8 985	10 552	13 639
Neutral Zone (c)	26 526	25 153	19 937	24 922	...
Oman	18 085	19 420	18 027	15 558	14 736
Pakistan	306	305	405	499	...

Production of Crude Petroleum

thousand tonnes

Country	1975	1976	1977	1978	1979
Qatar	21 102	24 018	23 554	25 783	* 26 000
Saudi Arabia	351 940	427 809	458 839	457 618	476 300
Sharjah	1 826	1 802	1 368	1 058	...
Syria	9 572	10 039	9 117	8 941	* 8 000
Taiwan	196	226	232	225	210
Australia	21 738	22 122	22 793	22 976	23 141
New Zealand (e)	206	548	785	660	435
World total	2 686 000	2 904 000	3 010 000	3 085 000	3 156 000

Note: The figures shown in this table exclude natural gasoline

(a) Including oil from shale and coal

(b) Figure for 1975 includes estimated production from occupied Sinai

(c) Neutral zone of Kuwait and Saudi Arabia

(d) Years ended 31 March following that stated

(e) Petroleum condensate

Production of Natural Gas

Million m³

Country	1975	1976	1977	1978	1979
United Kingdom	36 267	38 513	40 565	39 108	40 292
Belgium	50	33	40	44	39
France	7 394	6 938	7 598	7 610	7 769
Germany, Federal Republic of	18 248	18 659	19 104	20 450	20 685
Italy	14 562	15 640	13 717	13 701	13 466
Netherlands	90 853	97 302	96 899	88 730	93 636
Austria	2 359	2 144	2 393	2 414	2 312
Bulgaria	111	31	10	20	...
Czechoslovakia	811	801	940	740	...
German Democratic Republic	* 7 300	* 8 600	* 8 500	* 8 600	...
Hungary	5 182	6 082	6 611	7 346	6 506
Norway	—	—	3 139	14 891	21 506
Poland	5 963	6 699	7 296	7 991	7 335
Romania	33 306	36 330	35 281	35 543	34 057
Soviet Union	289 268	320 953	346 003	372 194	407 000
Yugoslavia	1 484	1 730	1 897	1 935	1 857
Algeria	7 817	8 501	7 941	13 878	21 400
Gabon	47	50	60	57	...
Libya	10 800	14 300	15 800	15 921	16 000
Morocco	71	79	86	86	...
Nigeria	456	485	665	799	1 019
Tunisia	210	214	230	286	330
Barbados	2	4	4	8	...
Canada	87 520	87 684	90 884	88 601	94 116
Mexico	14 402	16 365	16 992	21 093	...
Trinidad & Tobago	1 522	1 704	2 031	2 401	2 500
USA	569 414	564 990	567 058	565 602	558 496
Argentina	7 871	8 234	8 609	7 954	8 686
Bolivia	1 728	1 769	1 673	* 1 800	...
Brazil	* 700	* 710	* 780	* 1 000	...
Chile	3 406	4 017	3 791	* 3 500	...
Colombia	1 797	1 711	2 102	* 2 100	...
Peru	1 138	1 205	1 218	* 1 500	...
Venezuela	17 040	16 632	17 657	17 021	18 626
Afghanistan (c)	2 959	2 546	2 582	* 2 565	...
Bahrain	2 079	2 178	2 367	* 2 360	...
Bangladesh (d)	666	887	916	971	1 112
Brunei	* 6 000	6 953	7 965	7 789	23 094
Burma (b)	217	240	249	358	...
China	* 40 000	* 80 000	* 95 000	* 105 000	...
India	1 253	1 514	1 631	1 731	1 925
Indonesia	6 293	8 839	15 370	23 223	28 119
Iran	21 830	22 477	22 000	19 500	* 10 500
Iraq	1 654	2 107	1 580	1 609	...
Israel	60	58	57	51	...
Japan	2 437	2 462	2 804	2 629	2 694
Kuwait (a)	5 205	5 600	5 130	5 562	6 519
Malaysia	80	90	93	94	98
Pakistan	5 000	5 141	5 047	5 187	* 6 000
Qatar	2 209	1 476	1 607	1 395	...
Saudi Arabia (a)	5 300	5 600	* 6 000	* 6 800	...
Taiwan	1 575	1 836	1 886	1 841	1 721
Australia	5 026	5 929	6 728	7 320	8 382
New Zealand	525	1 421	2 257	2 125	1 307
World total	1 349 000	1 446 000	1 509 000	1 563 000	1 630 000

Note: So far as possible the figures in this table represent gas utilised as fuel

(a) Includes one-half of the output of the Neutral Zone

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Years ended 30 June of that stated

Exports of Crude Petroleum

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 053 382	3 397 242	15 470 043	23 138 777	38 833 712
Belgium-Luxembourg	81 505	335	51	80 903	3
Germany, Federal Republic of	14 285	31 061	33	31	44
Norway	7 771 166	13 623 874	13 556 881	16 685 295	18 710 771
Soviet Union	93 070 000	* 110 790 000	* 110 000 000	* 115 000 000	* 120 000 000
Algeria	38 436 725	43 372 077	47 456 571	47 360 501	...
Angola	7 263 900	579 378	7 574 900	* 7 220 000	...
Congo	2 400 000	1 845 844	1 301 196	1 109 533	...
Egypt	922 747	3 922 421	3 990 570	4 270 009	5 245 837
Gabon	10 508 565	9 911 525	10 167 288	8 829 814	...
Libya	68 925 584	89 183 262	103 051 406	98 262 445	...
Nigeria	81 696 514	95 871 533	100 003 104	* 86 250 000	...
Tunisia	4 759 695	3 686 782	4 144 877	4 673 652	...
Canada	38 093 491	26 514 965	17 546 865	14 221 630	15 277 740
Mexico	5 393 000	6 214 000	10 379 000	18 757 000	...
Netherlands Antilles	1 260 000	908 000	1 874 000	* 1 000 000	...
Trinidad & Tobago	7 362 951	7 259 185	7 858 093	7 971 619	* 7 500 000
USA	2 720	323 189	2 483 182	4 725 147	4 185 611
Bolivia	1 201 217	1 169 654	651 055	415 245	197 770
Ecuador	6 643 841	8 426 900	6 883 322	* 7 200 000	...
Peru	195 202	264 213	84 856	* 1 200 000	...
Venezuela	77 992 000	72 793 000	69 984 000	65 933 000	74 607 000
Brunei (a)	8 835 306	10 351 980	10 762 801	11 200 833	...
Indonesia	52 506 623	59 267 473	68 030 214	69 560 158	60 417 683
Iran (b)	166 313 693	122 350 711	...	...	...
Iraq	100 995 000	102 635 000	112 688 000	116 773 000	...
Israel (e)	3 593 700	—	—	—	...
Kuwait	90 169 000	89 180 290	81 164 521	88 500 000	...
Malaysia (d)	3 794 538	7 217 652	7 354 577	7 479 958	...
Neutral Zone (c)	23 563 100	23 101 000	15 511 800	...	...
Oman	18 114 000	19 492 700	17 695 331	15 602 165	...
Qatar	20 695 172	23 200 000	17 395 655	25 431 046	...
Saudi Arabia	304 515 700	390 874 100	428 171 200	383 304 700	...
Singapore	247 520	1	187 637	90 487	124 214
Syria	9 529 750	9 661 691	7 948 610	8 109 942	...
United Arab Emirates	81 721 085	94 396 570	96 273 199	88 152 087	...

(a) Exported to Sarawak for refining

(b) Years ended 20 March following that stated

(c) Neutral zone of Kuwait and Saudi Arabia

(d) Including crude imported into Sarawak from Brunei and re-exported

(e) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

Imports of Crude Petroleum

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	88 514 919	88 618 428	70 202 450	65 458 875	57 830 226
Belgium-Luxembourg	26 168 207	28 811 418	34 998 483	30 795 740	31 596 685
Denmark	7 915 462	7 583 897	7 335 965	7 725 154	...
France	107 004 656	122 354 540	118 274 281	116 387 810	126 010 262
Germany, Federal Republic of	88 413 924	97 669 209	96 289 675	94 375 050	107 354 974
Irish Republic	2 405 863	1 698 738	2 218 546	2 067 755	2 027 219
Italy	94 443 439	100 590 258	99 740 179	107 837 605	109 265 764
Netherlands	55 225 000	62 587 039	65 969 575	57 827 057	61 161 661
Austria	6 045 035	7 267 468	6 786 993	8 066 333	8 827 011
Bulgaria	10 459 000	10 839 000	11 763 000	* 11 900 000	...
Czechoslovakia	15 839 000	17 082 000	18 322 000	18 577 000	18 834 000
Finland	9 622 045	11 135 668	11 517 229	10 453 872	12 716 457
German Democratic Republic	16 997 000	18 036 000	19 042 000	19 925 000	...
Greece	12 891 486	11 637 777	9 403 074	12 371 250	15 495 000
Hungary	8 431 000	8 785 000	8 538 000	9 960 047	9 638 368
Norway	5 745 726	8 076 284	8 557 892	8 391 833	7 611 074
Poland	13 306 000	15 095 000	16 404 000	16 615 000	16 606 000
Portugal	5 554 710	5 926 172	5 949 028	6 437 121	7 732 522
Romania	5 085 000	8 475 000	8 844 000	12 937 000	14 298 000
Soviet Union	6 499 000	6 425 000	* 6 500 000	* 6 000 000	* 3 500 000
Spain	41 345 552	48 955 999	39 035 773	39 136 394	42 717 210
Sweden	12 139 687	13 566 219	14 278 448	15 641 573	16 160 000
Switzerland	4 385 046	4 014 478	4 144 882	3 872 225	4 203 409
Turkey	8 920 133	11 512 727	11 750 450	10 762 108	7 191 000
Yugoslavia	7 415 955	8 312 569	9 652 760	10 379 841	11 813 749
Canary Islands	4 719 675	6 207 563	6 871 572	5 934 783	6 031 883
Egypt	2 320 000	640 800	—	—	—
Ethiopia	519 197	469 900	620 081	611 633	...
Ghana	1 242 488	1 117 727	1 191 852	* 1 207 000	...
Ivory Coast	1 464 822	1 529 627	1 601 868	1 550 623	1 973 807
Kenya	2 825 542	2 489 976	2 460 109	2 369 217	2 471 453
Liberia	549 833	601 576	—	* 98 900	...
Madagascar	781 564	554 024	449 859	487 608	299 237
Morocco	2 620 151	2 802 013	2 849 846	2 872 440	4 541 618
Mozambique	328 554	360 760	327 317	...	...
Senegal	652 805	* 710 000	765 460	* 810 000	...
Sierra Leone	188 904	219 620	231 441	246 331	315 972
South Africa	* 17 790 000	* 16 000 000	* 16 175 000	* 15 865 000	...
Sudan	1 220 100	1 132 300	—	1 023 600	...
Tanzania	729 149	957 211	710 000	1 106 452	...
Tunisia	1 014 089	1 156 018	1 034 711	942 498	...
Zaire	386 285	483 040	218 400	208 300	...
Zambia	1 284 638	994 070	863 416	* 900 000	...
Bahamas	* 10 500 000	* 9 255 000	* 9 500 000	* 9 300 000	...
Barbados	119 748	107 223	128 273	* 140 000	...
Canada	43 313 843	40 124 139	34 763 715	33 614 032	32 144 509
Costa Rica	271 435	251 388	335 247	* 341 000	...
Cuba	5 797 000	5 783 000	6 201 000	* 6 400 000	...
Dominican Republic	1 329 000	1 767 000	1 546 315	1 736 062	1 712 594
El Salvador	517 267	514 298	859 685	744 200	...
Guatemala	2 647 229	2 155 596	805 616	753 300	...
Honduras	699 081	397 000	450 810	228 145	...
Jamaica	1 508 190	1 290 000	1 026 675	1 011 389	...
Netherlands Antilles	25 522 000	35 060 000	28 979 000	* 28 500 000	...
Nicaragua	714 151	565 298	662 000	* 695 000	437 136
Panama	4 159 307	2 843 940	2 853 159	* 3 070 000	...
Trinidad & Tobago	7 743 275	12 057 702	8 525 499	7 749 670	7 387 444
USA	241 082 904	307 108 329	366 849 315	347 232 619	358 113 260
Argentina	2 099 112	2 979 459	3 306 801	* 2 800 000	...
Brazil	34 205 975	40 094 943	40 089 067	44 749 557	50 158 455
Chile	3 657 000	3 128 000	3 448 000	3 572 900	...
Ecuador	331 417	28	40	...	...
Uruguay	1 374 988	1 896 063	1 360 343	600 798	1 149 271

Imports of Crude Petroleum

tonnes

Country	1975	1976	1977	1978	1979
Bahrain	7 556 000	10 511 500	9 984 000	9 575 600	...
Bangladesh	837 800	1 242 700	2 025 100	2 025 100	...
Cyprus	383 980	426 450	447 303	486 120	...
India	14 006 000	14 032 000	14 548 000	14 892 000	...
Indonesia	93 869	47 717	2 941 677	2 180 800	3 069 846
Israel	7 383 800	7 677 100	7 682 300	8 142 600	...
Japan	240 255 207	231 843 542	241 750 785	238 729 354	249 255 344
Jordan	860 366	1 168 566	1 181 000	1 332 285	1 730 735
Korea, Republic of	15 394 639	18 298 761	20 743 348	23 790 300	...
Kuwait	4 164 000	4 065 700	4 477 600	...	...
Lebanon	2 205 200	2 271 900	1 747 900	1 721 600	...
Malaysia	3 159 642	3 625 098	3 771 711	3 452 600	...
Pakistan	2 988 100	2 839 500	2 946 500	4 165 400	...
Philippines	9 138 106	9 562 189	9 530 599	10 021 582	9 122 255
Singapore	18 101 445	21 254 959	23 631 341	27 651 237	28 163 001
Sri Lanka	1 598 300	1 544 320	1 524 816	1 516 127	...
Syria	2 412 770	2 763 745	2 916 065	2 371 185	...
Taiwan	7 532 457	12 392 048	13 569 489	17 129 796	17 435 865
Thailand	7 628 822	8 031 895	8 844 627	8 876 435	...
Yemen, People's Dem. Rep. of	1 596 816	1 707 292	2 030 800	2 030 000	...
Australia	8 140 691	8 591 330	9 209 819	10 174 952	9 935 040
New Zealand (a)	3 438 217	2 762 561	2 165 972	1 566 841	1 836 321

(a) Years ended 30 June of that stated

Production of Phosphate Rock

Country	1975	1976	1977	1978	1979
France (d)	18 000	28 000	19 000	24 500	* 20 000
Germany, Federal Republic of	81 278	85 624	80 497	—	—
Soviet Union	* 24 150 000	* 24 200 000	* 24 250 000	* 24 800 000	* 25 000 000
Algeria	669 200	743 100	1 001 000	1 173 100	1 082 800
Egypt	536 274	488 973	513 000	638 734	643 605
Kenya					
Guano	297	219	55	20	6
Morocco	14 119 400	15 656 155	17 577 254	19 273 000	20 175 100
Senegal					
Phosphate rock	1 599 971	1 591 000	1 800 000	1 843 000	1 600 000
Aluminium phosphates	201 445	208 000	275 000	203 921	...
South Africa	1 866 300	1 731 300	2 403 100	2 699 100	3 145 700
Togo	1 660 000	2 067 000	2 857 000	2 827 000	2 915 800
Tunisia	3 488 209	3 293 943	3 614 617	3 712 338	4 184 000
Uganda					
Apatite	* 10 000	* 15 000	* 5 000	* 5 000	* 5 000
Western Sahara (a)	2 682 000	173 000	232 000	440 000	...
Zimbabwe					
Apatite	150 772	110 554	104 800	106 639	136 238
Mexico	282 480	224 428	285 470	322 076	* 300 000
Netherlands Antilles	82 000	54 000	79 000	81 000	90 000
USA (c)	44 285 000	44 671 000	47 256 000	50 037 000	52 000 000
Brazil					
Apatite	406 030	489 617	650 486	1 023 000	1 500 000
Chile					
Guano	13 518	16 107	7 017	240	...
Colombia	13 000	9 300	5 800	1 360	* 2 000
Venezuela	155 000	80 000	139 100	108 700	120 000
China	* 3 400 000	* 3 750 000	* 4 100 000	* 4 400 000	* 5 000 000
Christmas Island (b)(e)	1 342 450	1 036 950	1 262 608	1 378 046	1 360 852
India					
Apatite	30 338	38 280	35 361	29 770	20 548
Phosphate rock	429 089	644 058	704 961	759 500	644 684
Indonesia	7 902	5 000	4 000	5 000	5 000
Israel	882 000	639 000	1 228 000	1 553 900	2 215 600
Jordan	1 351 529	1 683 141	1 771 141	2 328 700	2 825 823
Korea, Dem. P.R. of	* 450 000	* 450 000	* 450 000	* 450 000	* 450 000
Philippines					
Phosphate rock	5 401	11 923	10 323	977	1 000
Guano	125 813	1 757	162	821	...
Syria	857 300	511 000	425 000	800 000	1 170 000
Thailand	5 805	7 250	3 100	3 485	...
Vietnam					
Apatite	* 1 400 000	* 1 500 000	* 1 600 000	* 1 600 000	* 400 000
Australia	123 883	275 600	449 631	250 415	6 999
Banaba (b)	520 400	422 050	418 650	468 400	445 700
Nauru(b)	1 533 728	754 474	1 145 674	1 998 900	1 828 420
World total	109 000 000	108 000 000	117 000 000	125 000 000	130 000 000

(a) Since 1976, not administered by Spain

(b) Exports

(c) Marketable production

(d) 10% P₂O₅

(e) Including phosphate dust

Phosphates

Exports of Phosphate Rock

tonnes

Country	1975	1976	1977	1978	1979
Belgium-Luxembourg	27 996	9 104	11 553	14 203	18 433
France	3 704	1 952	10 085	16 503	26 017
Germany, Federal Republic of	7 797	1 880	1 280	1 230	952
Netherlands	25 998	73 676	75 915	66 605	71 427
Soviet Union					
Apatite ore	26 000	* 26 000	* 25 000	* 25 000	* 25 000
Apatite concentrates	5 830 053	* 5 900 000	* 5 900 000	* 6 000 000	* 6 000 000
Sweden	23 617	13 868	42 187	65 045	43 816
Algeria	213 365	568 760	775 501	614 450	860 000
Egypt	104 670	119 383	59 166	64 093	...
Morocco (a)	13 110 058	14 684 162	15 783 537	17 284 372	17 856 090
Senegal					
Calcium phosphate	1 317 209	1 568 000	1 861 404	} 1 686 000	1 710 000
Aluminium phosphate	199 706	202 000	203 000		
Seychelles					
Guano	3 988	5 670	5 277	6 089	...
South Africa					
Phosphate rock	13 229	11 118	4 510	—	5 321
Togo	1 125 919	1 997 000	2 886 000	2 849 000	2 991 000
Tunisia (a)	2 053 772	1 961 841	2 091 426	1 560 220	1 517 000
Western Sahara (c)	2 677 000	277 000	25 000	441 000	...
Mexico	257	747	2 344	1 021	...
Netherlands Antilles	54 341	77 483	75 206	78 800	...
USA	11 450 681	9 995 786	14 016 378	13 692 646	14 786 811
Christmas Island					
Phosphate rock	1 197 100	895 300	1 114 350	1 224 700	1 237 800
Phosphate dust	145 350	141 650	148 258	153 346	123 052
Israel (b)	259 127	341 445	479 708	479 401	...
Jordan	1 111 877	1 653 244	1 788 414	2 159 920	2 754 615
Singapore	33 467	30 986	22 550	13 019	12 465
Syria	307 905	421 376	610 219	919 804	1 261 000
Australia	* 91 800	* 264 000	* 212 000	* 284 300	...
Banaba	520 400	422 050	418 650	468 400	445 700
Nauru	1 533 728	754 474	1 145 674	1 998 900	...

(a) Including hyperphosphates

(b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

(c) Since 1976, not administered by Spain

Imports of Phosphate Rock

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 561 535	1 764 068	1 826 694	1 771 722	1 751 800
Belgium-Luxembourg	1 771 440	1 582 138	1 926 116	1 941 348	2 155 347
Denmark	257 688	260 718	271 580	281 525	280 000
France	3 447 909	4 069 956	4 736 195	4 965 571	5 385 589
Germany, Federal Republic of	2 291 581	2 369 873	2 694 445	2 441 220	2 584 042
Irish Republic	146 253	188 292	120 995	104 728	106 400
Italy	1 639 130	1 540 881	1 572 711	1 618 707	1 624 800
Netherlands	1 591 134	1 762 720	1 991 525	2 207 702	2 451 072
Austria	408 316	307 865	347 705	314 341	410 100
Czechoslovakia (a)	376 000	347 000	348 000	317 000	322 000
Finland	623 003	337 963	407 366	429 807	672 526
German Democratic Republic (a)	509 700	518 000	506 300	460 200	...
Greece	454 634	346 542	132 467	99 064	82 864
Hungary	702 000	503 845	646 416	759 076	595 111
Norway	414 490	318 641	367 935	419 329	427 397
Poland					
Apatite concentrates	806 000	598 000	569 000	467 000	} 3 327 000
Phosphate rock	2 502 000	2 634 000	2 989 000	2 765 000	
Portugal	310 044	333 718	349 717	389 748	383 448
Romania (a)	516 000	684 900	778 900	879 100	923 500
Spain	1 068 237	1 367 345	2 762 471	2 947 057	2 926 065
Sweden	675 900	580 913	582 049	574 401	619 160
Switzerland	8 737	8 124	10 393	11 393	13 020
Turkey	907 787	793 112	642 831	591 842	513 122
Yugoslavia	846 484	880 487	1 066 091	902 610	896 443
Canary Islands	198	2 663	11 579	8 270	6 350
Ivory Coast	6 897	1 584	7 175	9 315	6 207
Mauritius					
Guano	6 023	5 558	—	—	—
Mozambique	4 000	2 000	5 000	3 000	3 000
Nigeria	3 000	12 000	16 000	3 000	25 000
South Africa	1 810	74	—	4	7
Tanzania	22 213	49 387	27 102	20 588	20 000
Tunisia	560	1 395	2 468	1 801	...
Zambia	57	23	...	...	...
Canada	3 282 257	2 241 086	2 361 631	2 961 362	3 258 458
Mexico	813 108	172 722	1 420 008	1 349 427	...
USA	33 231	46 434	525 950	920 305	893 495
Brazil	887 176	1 434 440	1 617 126	1 155 826	753 687
Colombia (b)	43 939	16 733	52 433	69 099	47 941
Uruguay	77 473	47 266	75 275	65 140	130 145
Bangladesh	30 000	40 000	94 000	86 000	93 000
China	1 194 000	1 229 000	1 336 000	1 412 000	427 000
India	567 314	471 521	951 032	829 578	* 1 000 000
Japan	2 903 715	2 334 970	2 652 308	2 599 162	2 827 538
Korea, Dem. P.R. of	91 000	119 000	107 000	217 000	325 000
Korea, Republic of	705 880	746 367	1 169 231	1 645 000	1 804 000
Lebanon	127 000	—	300 730	236 000	438 000
Malaysia	140 698	152 026	169 303	221 100	...

Phosphates

Imports of Phosphate Rock

tonnes

Country	1975	1976	1977	1978	1979
Pakistan (c)	...	34 444	25 022	42 432	56 447
Philippines	174 403	60 776	79 918	21 776	96 632
Singapore	24 611	27 199	26 071	14 108	5 405
Sri Lanka	...	195	319	—	...
Taiwan	210 600	227 578	309 750	287 758	359 569
Australia	1 937 000	1 201 000	1 448 000	2 052 000	2 369 000
New Zealand (c)	1 209 676	935 597	1 049 744	1 137 193	1 349 279

(a) P₂O₅ content

(b) Exports from the USA

(c) Years ended 30 June of that stated

Production of Platinum Group Metals

kilograms (metal content)

Country	1975	1976	1977	1978	1979
Finland (a)	* 13	* 15	* 22	* 22	* 22
Soviet Union	* 82 430	* 87 100	* 90 200	* 95 000	* 100 000
Yugoslavia					
Platinum	...	31	24	13	* 20
Palladium	...	120	155	173	* 160
Ethiopia (f)	6	7	6	5	3
South Africa					
Platinum	* 80 795	* 83 900	* 89 200	* 88 900	} * 99 500
Osmiridium (c)(d)	* 75	* 75	* 75	* 75	
Canada (e)	12 417	12 965	14 475	10 768	5 754
USA					
Platinum metals (b)					
Platinum	165	85	26	34	62
Palladium	341	125	134	225	199
Iridium	7	8	2	—	—
Osmium	1	1	0	—	—
Rhodium	1	1	0	—	—
Colombia	688	522	539	434	467
Japan					
Platinum	189	270	303	316	* 320
Palladium	461	563	707	746	* 750
Philippines					
Platinum	18	—	—	—	—
Palladium	26	—	—	—	—
Australia					
Platinum	10	6	—	...	...
Palladium	299	286	121	...	...
World total	178 000	186 000	196 000	197 000	207 000

(a) Recovered from copper refining

(b) Recovered by refineries from domestic platinum, gold and copper ores

(c) From gold ores

(d) Sales

(e) Platinum metals content of concentrates (produced from Ni-Cu ores), residues and matte exported

(f) Years ended 6 July of that stated

Exports of Platinum Group Metals

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom					
Platinum	25 893	20 159	19 658	22 075	21 451
Palladium	11 289	15 738	9 162	10 807	8 695
Other platinum metals	1 996	2 974	3 077	5 377	12 463
Waste & scrap	95	4 549	17 344	313	232
Belgium-Luxembourg					
Platinum	1 081	928	1 172	1 365	995
Platinum metals	2 124	2 912	2 025	2 295	2 527
France					
Platinum	3 374	23 848	2 121	1 889	2 484
Platinum metals	3 094	3 409	2 870	1 352	2 586
Waste & scrap	80	79	142	3 150	443
Germany, Federal Republic of					
Platinum	7 083	7 846	8 559	7 853	8 958
Palladium	7 658	6 369	6 031	3 450	4 067
Other platinum metals	3 006	2 798	3 429	2 518	3 564
Waste & scrap	12	29 966	111 380	25 386	44 562
Italy					
Platinum	1 499	1 165	1 661	2 064	66 625
Platinum metals	288	112	231	45	737
Netherlands					
Platinum	227	410	394	723	905
Platinum metals	960	620	1 056	454	648
Austria					
Platinum & platinum metals	1 289	293	215	238	179
Norway					
Platinum & platinum metals	1 455	1 509	1 240	968	1 161
Soviet Union					
Platinum & platinum metals (a)	* 55 700	* 80 500	* 78 900	* 73 800	* 87 300
Switzerland					
Platinum	13 302	17 755	19 065	27 869	19 645
Yugoslavia					
Platinum	—	76	145	2 076	1 997
Palladium	140	210	2 193	...	...
South Africa					
Platinum & platinum metals (a)	* 57 600	* 67 800	* 69 600	* 81 300	* 98 600
Canada					
Ores & concentrates (b)	13 472	12 072	12 391	10 557	4 905
Platinum metals	2 599	2 039	2 159	1 080	1 779
of which: Re-exports	539	384	1 040	169	43
USA					
Ores & concentrates (b)	240	194	558	451	466
Platinum	13 524	6 938	4 950	4 911	6 045
of which: Re-exports	5 304	2 924	685	368	192
Platinum metals	11 821	7 024	5 452	11 441	16 276
of which: Re-exports	4 282	1 635	1 374	766	1 552
Waste & scrap	240	5 634	3 829	5 139	5 476
Colombia					
Platinum	...	428	234	...	...
Hong Kong					
Platinum & platinum metals (Re-exports)	402	886	424	689	606
Japan					
Platinum	4 263	2 214	2 271	1 282	1 701
Platinum metals	967	1 317	1 546	2 519	1 816
Taiwan					
Platinum & platinum metals	100	—	22	42	* 2
Australia					
Platinum & platinum metals	550	623	2 236	...	...

Note: In this table the description 'Platinum' and/or 'Platinum metals' as used here includes unwrought, partly worked and alloys

(a) IGS estimates, based on known imports into certain countries

(b) Platinum metals content

Imports of Platinum Group Metals

kilograms

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates (a)	* £54 549 000	* £62 468 000	* £61 380 000	* £80 880 000	* £90 332 000
Platinum	5 979	3 536	5 631	3 859	7 815
Palladium	2 091	2 464	1 985	5 135	1 625
Other platinum metals	1 436	1 776	2 476	2 138	2 623
Waste & scrap	5 308	7 700	5 646	8 314	11 640
Belgium-Luxembourg					
Platinum	1 096	227 692	1 923	2 159	1 605
Platinum metals	7 702	388	1 100	494	1 006
France					
Platinum	5 673	5 615	6 494	5 396	9 281
Platinum metals	4 106	3 955	4 023	2 544	4 048
Waste & scrap	1 232	4 721	3 198	2 578	2 100
Germany, Federal Republic of					
Platinum	8 903	9 831	11 703	9 374	15 853
Palladium	11 449	18 276	13 404	11 458	11 882
Other platinum metals	2 384	3 139	2 562	3 982	3 543
Waste & scrap	279 491	204 303	97 594	48 536	29 929
Italy					
Platinum	1 621	2 324	17 523	2 807	3 017
Platinum metals	1 469	4 452	3 073	4 140	10 810
Netherlands					
Platinum	8 259	2 038	1 202	965	1 108
Platinum metals	1 207	835	1 532	943	896
Austria					
Platinum & platinum metals	109	211	215	1 628	61
Czechoslovakia					
Platinum & platinum metals (e)	* 300	* 100	* 400	* 200	* 100
Finland					
Platinum & platinum metals	230	715	183	104	112
Hungary					
Platinum & platinum metals (e)	* 400	* 600	* 300	* 400	* 300
Norway					
Platinum & platinum metals	105	90	149	298	210
Poland					
Platinum & platinum metals (e)	* 300	* 100	* 500	* 600	* 400
Portugal					
Platinum & platinum metals	75	151	188	186	
Romania					
Platinum & platinum metals (e)	* 200	* 400	* 500	* 400	* 400
Spain					
Platinum & platinum metals	1 756	1 163	878	362	2 428
Sweden					
Platinum & platinum metals	3 000	1 000	2 000	3 000	4 000
Switzerland					
Platinum	14 445	20 110	18 033	15 741	15 410
Turkey					
Platinum & platinum metals	19	83	1 587	344	...
Yugoslavia					
Platinum	47	136	601	2 220	2 474
Palladium	961	1 658	2 481	...	...
Algeria					
Platinum & platinum metals	37	54	68	178	...
Libya					
Platinum & platinum metals	121	100	2	1	...
Nigeria					
Platinum & platinum metals	56	56	...	...	...
South Africa					
Platinum & platinum metals	2 213	509	329	668	1 283
Tunisia					
Platinum	13	8	40	3	...
Zambia					
Platinum	21	17	51	...	...

Imports of Platinum Group Metals

kilograms

Country	1975	1976	1977	1978	1979
Canada					
Platinum & platinum metals (c)	1 896	1 325	1 091	1 747	827
Costa Rica					
Platinum & platinum metals	269	283	206	...	...
Mexico					
Platinum	132	17	5	2	...
Palladium	126	49	30	...	...
Other platinum metals	37	19	8	6	...
USA					
Ores & concentrates (d)	1	—	150	308	345
Platinum	21 256	31 114	25 595	36 523	44 610
Platinum metals-					
Palladium	16 301	34 940	35 822	38 075	46 795
Iridium, osmium & osmiridium	716	902	706	1 501	1 283
Rhodium	2 551	1 995	2 486	3 202	3 391
Ruthenium	527	2 385	1 672	2 287	3 885
Waste & scrap	3 624	4 565	7 710	5 860	4 873
Argentina					
Platinum	16	17	71	...	...
Palladium	64	40	54	...	...
Brazil					
Platinum	225	157	263	119	302
Palladium	926	317	406	388	515
Venezuela					
Platinum & platinum metals	136	2 020	51	245	...
China					
Platinum & platinum metals (e)	* 300	* 250	* 300	* 1 700	* 1 200
Hong Kong					
Platinum & platinum metals	5 795	8 643	5 244	3 834	1 995
India					
Platinum	531	560	398	411	...
Iran (f)					
Platinum & scrap	£68 000	£72 000	...	...	...
Israel					
Platinum metals	£188 500	£219 600	£253 800	£382 900	...
Japan					
Platinum	49 183	38 519	36 879	38 946	30 486
Platinum metals	15 903	20 713	17 324	25 143	33 247
Korea, Republic of					
Platinum	1 014	556	1 607	...	...
Malaysia					
Platinum & platinum metals	27	15	53	...	...
Singapore					
Platinum	62	199	425	44	161
Taiwan					
Platinum & platinum metals	5 436	3 386	4 538	3 868	8 800
Thailand					
Platinum & platinum metals	39	19	44	6	...
Australia					
Platinum metals	1 425	784	26 413	4 669	4 156
New Zealand (b)					
Platinum & platinum metals	140	87	39	63	84

Note: In this table the description 'Platinum' and/or 'Platinum metals' as used here includes unwrought, partly worked and alloys

(a) Values shown refer to imports of 'ores and concentrates of silver, platinum and platinum metals', assuming that the imports of silver ores and concentrates are negligible

(b) Years ended 30 June of that stated

(c) Derived from Canadian ores and concentrates exported for treatment

(d) Platinum metals content

(e) IGS estimates, based on known exports from certain countries

(f) Years ended 20 March following that stated

Production of Potash

tonnes (K₂O content)

Country	1975	1976	1977	1978	1979
United Kingdom					
Chloride	16 615	48 645	85 365	157 342	277 684
France					
Potassic salts	1 920 000	1 640 000	1 678 000	1 928 000	2 075 000
Germany, Federal Republic of					
Potassic salts	2 223 000	2 036 000	2 341 000	2 470 000	2 616 000
Italy					
Potassic salts	220 000	203 000	342 567	248 310	182 429
German Democratic Republic					
Potassic salts	3 019 000	3 161 000	3 229 000	3 320 300	3 396 000
Soviet Union	* 7 944 000	* 8 310 000	* 8 347 000	* 8 193 000	* 7 500 000
Spain					
Potassic salts	567 040	630 252	693 789	722 301	* 688 000
Congo	286 000	254 000	* 83 000	—	—
Canada					
Chloride	5 435 706	4 995 863	6 088 587	6 109 555	6 698 504
USA					
Potassic salts	2 269 000	2 177 000	2 229 000	2 253 000	2 225 000
Chile					
Nitrate	* 12 000	* 15 000	* 16 000	* 17 000	* 15 000
China	* 150 000	* 150 000	* 150 000	* 150 000	* 150 000
Israel					
Chloride	716 000	690 000	719 000	732 000	725 000
World total	24 800 000	24 300 000	26 000 000	26 300 000	26 500 000

Potash

Exports of Potash

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Sulphate (b)	2 269	529	120	433	85
Chloride	1 559	23 566	35 047	62 951	164 700
Caustic potash	310	502	650	231	1 571
Carbonate	132	152	72	121	78
Nitrate	149	67	102	88	47
Belgium-Luxembourg					
Fertiliser salts (a)	90	101	82	138	566
Sulphate (a)(b)	215 030	217 520	237 810	274 416	297 668
Chloride (a)	3 585	4 407	7 189	8 551	5 138
Carbonate	907	1 049	943	1 370	918
Nitrate	104	483	1 440	281	467
France					
Fertiliser salts	11 993	12 869	12 420	11 533	18 453
Sulphate (a)(b)	714	244	2	6	48
Chloride (a)	423 229	327 013	359 284	296 257	248 118
Other potassic fertilisers	39 484	33 981	36 987	30 618	33 913
Caustic potash	11 396	11 865	12 792	11 212	15 075
Nitrate	2 386	3 236	3 747	3 781	5 035
Germany, Federal Republic of					
Fertiliser salts (a)	7 438	7 046	5 984	5 234	7 792
Sulphate (a)(b)	233 060	191 683	205 083	227 540	266 962
Chloride (a)	763 431	675 998	772 382	1 128 304	1 110 260
Caustic potash	8 848	12 468	16 155	11 606	10 910
Carbonate	17 601	21 172	20 338	21 501	22 560
Italy					
Sulphate (b)	67 789	93 552	132 090	106 841	105 223
Caustic potash	864	1 591	2 928	...	...
Netherlands					
Sulphate (a)	445	118	(b) 105	(b) 177	(b) 138
Chloride (a)	2 328	587	483	473	1 503
Caustic potash	136	45	211	456	522
Carbonate	17	91	35	563	751
Nitrate (d)	13	82	236	399	272
German Democratic Republic					
Fertiliser salts (a)	2 252 000	2 428 000	2 740 000	2 744 000	...
Caustic potash	8 842	8 130	...	...	...
Carbonate	8 225	8 644	...	...	...
Poland					
Potassic salts	5 750	8 633	8 437	8 342	...
Portugal					
Sulphate	—	500	3 699	1 315	...
Chloride	3	193	—	—	—
Caustic potash	5	13	1	0	14
Soviet Union					
Fertiliser salts	5 985 643	5 566 833	6 024 367	5 771 093	4 773 334
Spain					
Sulphate	62 946	62 320	61 785	64 460	80 340
Chloride	65 035	346 309	430 979	340 268	597 132
Nitrate	156	133	633	233	357
Sweden					
Chloride	1 803	1 244	1 705	3 371	441
Caustic potash	2 265	2 832	3 228	3 062	3 628
Carbonate	6	3	21	26	15
Yugoslavia					
Caustic potash	...	...	1 733	1 073	2 349
Congo					
Potassic fertilisers	408 159	400 379	291 002	37	...
Ivory Coast					
Potassic fertilisers	1 152	71	201	57	61
Canada					
Chloride	7 242 070	8 278 141	9 206 094	9 387 451	10 642 875

Exports of Potash

Potash

tonnes

Country	1975	1976	1977	1978	1979
USA					
Fertiliser salts (a)	2 722	1 921	1 379	...	...
Sulphate (a)	...	* 100 000	* 100 000	122 000	91 100
Chloride (a)	564 542	735 666	720 765	687 000	543 600
Other potassic fertilisers (a)	139 399	119 641	123 424	90 895	124 157
Caustic potash (a)	6 703	8 024	14 001	17 964	21 859
India					
Caustic potash (c)	249	384	390	...	...
Carbonate (c)	349	168	189	...	...
Nitrate	18	6	11	110	...
Israel (e)					
Carbonate	1 901	2 946	2 575	3 413	3 312
Japan					
Sulphate	5 174	3 751	543	4 149	2 002
Chloride	401	1 307	1 622	4	4
Caustic potash	5 279	5 165	5 106	5 499	5 268
Chlorate	410	613	119	118	147
Singapore					
Potassic fertilisers	134 740	153 045	128 271	203 616	234 167
Taiwan					
Chlorate	1 250	947	1 155	1 110	1 082

Note: Potassium sulphate and chloride shown in this table refer to fertiliser grade [Standard International Trade Classification (Revision 2) code 562.3] unless otherwise stated. Those shown as chemical grade relate to S.I.T.C. code 523

(a) K₂O content

(b) Including chemical grade

(c) Years ended 31 March following that stated

(d) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(e) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

Potash

Imports of Potash

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Fertiliser salts	28 449	30 727	20 443	23 552	37 626
Sulphate (g)	21 449	26 119	23 669	22 180	21 995
Chloride	658 593	705 663	710 980	644 822	607 860
Other potassic fertilisers	1 870	—	—	—	—
Caustic potash	2 186	3 715	3 266	3 420	3 120
Carbonate	8 983	11 791	11 180	12 166	14 351
Nitrate	7 430	6 931	10 220	10 176	8 037
Belgium-Luxembourg					
Fertiliser salts (a)	12 862	9 831	9 521	8 419	10 830
Sulphate (a)(g)	16 648	18 956	7 401	18 980	17 408
Chloride (a)	515 897	467 575	542 188	558 427	595 927
Caustic potash	259	244	302	365	725
Carbonate	4 891	6 229	5 741	5 889	6 422
Nitrate	1 088	1 692	3 199	1 696	1 606
Denmark					
Sulphate (a)(g)	253	246	1 229	6 512	...
Chloride (a)	109 315	111 244	121 812	97 151	...
Caustic potash	1 018	1 590	2 091	2 321	...
Carbonate	202	264	344	388	...
Nitrate	1 490	1 535	1 501	1 845	...
France					
Sulphate (a)(g)	46 552	65 769	74 356	74 117	84 893
Chloride (a)	181 434	106 800	146 382	97 906	109 431
Caustic potash	115	220	93	662	1 829
Nitrate	6 660	14 700	17 875	22 245	24 535
Germany, Federal Republic of					
Chloride (a)	35 786	43 222	49 887	55 247	52 893
Caustic potash (f)	5 171	1 089	674	2 809	3 229
Carbonate	5 310	5 935	5 415	6 590	7 013
Nitrate	2 499	2 220	3 611	3 650	3 723
Irish Republic					
Sulphate			7 970	4 266	4 078
Chloride	169 894	256 290	269 352	327 357	373 008
Other potassic fertilisers			1 831	2 399	40
Caustic potash (h)	283	1 157	748	583	861
Italy					
Fertiliser salts	23 027	24 116	22 186	19 153	22 316
Sulphate (g)	10 017	11 689	57 273	52 195	65 798
Chloride	263 372	314 161	392 008	479 213	677 582
Caustic potash	679	767	878	763	1 347
Carbonate	6 513	8 274	8 816	9 803	11 012
Nitrate	3 743	7 849	8 933	10 471	3 372
Netherlands					
Fertiliser salts (a)(e)	890	701	526	403	881
Sulphate (a)	29 153	30 712	(g) 52 036	(g) 38 921	(g) 44 776
Chloride (a)	120 192	145 033	165 082	154 944	160 386
Caustic potash	4 342	4 905	5 996	6 334	6 755
Carbonate	5 479	6 623	6 198	5 776	6 521
Nitrate (e)	5 816	6 317	7 882	9 300	14 099
Austria					
Fertiliser salts	19 257	19 982	24 738	19 231	16 302
Sulphate	25 568	23 889	33 953	29 113	30 081
Chloride	214 248	188 417	253 598	215 872	257 027
Caustic potash	1 319	1 937	1 972	1 725	1 338
Carbonate	1 201	1 508	1 365	1 534	1 828
Nitrate	449	607	673	588	608
Czechoslovakia					
Fertiliser salts (a)	690 000	634 000	627 000	670 000	624 000

Imports of Potash

Country	1975	1976	1977	1978	1979
Finland					
Fertiliser salts	2	2	2	6	0
Sulphate	25 943	12 355	—	—	10 517
Chloride	279 965	193 500	240 664	243 382	289 498
Caustic potash	474	467	457	474	632
Carbonate	1 680	538	582	534	743
Nitrate	1 325	543	1 016	1 057	149
Greece					
Sulphate	28 117	51 304	5 600	18 803	9 116
Caustic potash	168	207	290	100	256
Carbonate	671	1 919	771	1 558	...
Nitrate	166	1 584	215	177	...
Hungary					
Fertiliser salts	1 373 000	1 172 000	1 248 000	1 525 000	...
Caustic potash	1 254	...	1 189	1 629	1 642
Iceland					
Fertiliser salts	2 974	6 555	10 118	5 801	5 759
Caustic potash	25	30	25	16	11
Carbonate	97	185	182	116	72
Norway					
Sulphate	92 435	72 217	90 650	106 612	98 338
Chloride	176 873	146 765	142 525	161 677	203 879
Other potassic fertilisers	212	151	228	380	373
Caustic potash	904	1 214	1 308	2 935	1 703
Carbonate	394	398	451	489	1 120
Chlorate	138	71	122	58	102
Nitrate	2 602	2 993	881	2 120	117
Poland					
Fertiliser salts	2 933 000	2 857 000	2 958 000	2 436 000	1 794 000
Chloride	22 103	19 650	21 094	22 599	...
Carbonate	5 750	7 206	7 421	8 852	...
Portugal					
Sulphate	2	0	0	0	1 040
Chloride	35 105	58 349	79 765	72 983	89 943
Caustic potash	352	368	571	361	382
Carbonate	504	621	798	797	...
Chlorate	304	330	315	306	...
Nitrate	542	803	718	816	...
Romania					
Fertiliser salts (a)	91 900	109 500	128 500	161 900	179 000
Soviet Union					
Caustic potash	7 519	10 015	...	...	...
Sweden					
Fertiliser salts	329	418	567	920	1 042
Chloride	171	62	4	3	53
Caustic potash	795	518	1 836	504	104
Carbonate	1 807	1 717	1 376	1 268	1 425
Nitrate	1 526	1 391	1 392	1 408	1 453
Switzerland					
Fertiliser salts	84 741	80 564	80 314	84 004	87 606
Sulphate	185	49	47	16	160
Caustic potash	1 136	1 409	1 390	1 341	1 837
Carbonate	2 243	3 141	3 712	2 690	3 735
Nitrate	603	565	712	664	815
Turkey					
Sulphate	1	4 974	6 093	—	...
Caustic potash	632	1 153	471	593	974
Carbonate	2 735	3 882	3 082	3 016	...
Chlorates	544	602	884	763	...
Nitrate	854	298	257	471	...
Yugoslavia					
Fertiliser salts	...	22	1	2	2
Sulphate	9 461	14 905	12 240	17 768	13 455
Chloride	237 853	318 090	366 491	425 403	381 541
Caustic potash	1 992	1 104	176	198 043	264 897

Potash

Imports of Potash

tonnes

Country	1975	1976	1977	1978	1979
Algeria					
Sulphate	57 355	37 728	78 535	54 760	...
Angola					
Sulphate (a)	...	...	1 500	500	...
Chloride (a)	...	...	1 200	600	...
Cameroon					
Fertiliser salts	330	1 610	6 925	7 146	...
Potassic fertilisers	11 190	4 691	10 825	...	...
Canary Islands					
Nitrate	300	900	1 430	1 359	2 251
Ivory Coast					
Chloride	26 270	33 665	26 886	41 176	32 537
Other potassic fertilisers	6 999	1 750	10	8 314	9 801
Caustic potash	5	131	622	140	110
Kenya					
Potassic fertilisers	334	3 917	7 338	10 752	91
Liberia					
Potassic fertilisers	468	1 847	1 070	546	...
Libya					
Potassic fertilisers	6 162	—	19 960	16 165	...
Madagascar					
Potassic fertilisers	6 688	7 552	4 348	6 900	7 443
Malawi					
Potassic fertilisers	785	140	—	1 568	...
Mauritius					
Potassic fertilisers	17 220	20 866	22 674	...	...
Morocco					
Sulphate	33 275	40 750	37 416	31 285	47 195
Chloride	38 183	18 491	24 409	22 428	35 636
Caustic potash	142	192	127	194	307
Chlorate	189	142	235	198	153
Nitrate	390	1 377	656	989	1 166
Mozambique					
Potassic fertilisers	1 541	2 514	3 291	...	...
Nigeria					
Potassic fertilisers	4 605	5 762	...	...	...
Senegal					
Potassic fertilisers	31 636	...	29 131	...	...
Sierra Leone					
Potassic fertilisers	229	264	—	0	60
South Africa					
Fertiliser salts	245 809	205 279	222 043	153 650	42 902
Potassic fertilisers	22 402	11 613	3 958	111 520	158 452
Caustic potash	1 050	428	1 298	2 016	1 815
Carbonate	—	—	206	1 350	1 862
Chlorate	—	—	324	584	197
Sudan					
Caustic potash	29	28	131	36	...
Tanzania					
Potassic fertilisers	9 032	5 695	11 718	...	...
Tunisia					
Potassic fertilisers	14 794	4 982	4 851	6 719	...
Nitrate	...	95	—	—	...
Zaire					
Potassic fertilisers	313	1 869	4 397	1 495	...
Barbados					
Potassic fertilisers	356	307	866	...	...

Imports of Potash

Potash

tonnes

Country	1975	1976	1977	1978	1979
Belize					
Potassic fertilisers	421	1 165	14	...	...
Canada					
Sulphate	10 432	7 831	11 447	19 819	20 106
Chloride	347	4 199	30 456	1 795	2 043
Other potassic fertilisers	44 458	45 134	63 731	53 818	49 667
Caustic potash	5 949	5 375	4 932	5 252	3 857
Carbonate	1 034	987	759	1 212	1 117
Nitrate	2 618	1 691	1 967	2 288	3 150
Costa Rica					
Potassic fertilisers	47 296	45 715	58 795	...	...
El Salvador					
Potassic fertilisers	8 022	1 268	13 720	...	...
Guatemala					
Potassic fertilisers	7	63	8 579	...	...
Honduras					
Potassic fertilisers	354	6 122	10 819	9 443	...
Jamaica					
Potassic fertilisers	21 514	15 076	8 717	5 722	...
Martinique					
Potassic fertilisers	1 918	2 024	2 419	624	...
Mexico					
Sulphate	16 180	32 802	18 431	21 489	...
Chloride	95 119	94 351	49 923	111 442	...
Caustic potash	513	1 916	1 476	2 014	...
Carbonate	464	3 953	2 119	2 327	...
Nicaragua					
Potassic fertilisers	753	3 592	...	...	18
Panama					
Potassic fertilisers	5 033	10 219	1 063	...	...
Trinidad & Tobago					
Potassic fertilisers	4 373	4 485	2 189	5 075	...
USA					
Sulphate (a)	34 912	21 250	34 491	29 000	10 100
Chloride (a)	3 393 305	4 136 278	4 553 926	4 650 000	5 141 000
Other potassic fertilisers (a)	100	180	237	204	5
Caustic potash (a)	5 205	524	535	930	1 667
Carbonate (a)	1 239	1 262	1 148	...	...
Chlorate & perchlorate (a)	73	415	836	...	...
Cyanide (a)	189	731	442	...	...
Nitrate, crude (a)	12 987	5 561	8 971	24 300	8 600
Nitrate, refined (a)	347	58	305	...	...
Argentina					
Sulphate	1 724	2 337	2 330	...	...
Chloride	3 904	6 824	3 961	...	...
Caustic potash	740	511	486	...	...
Carbonate	769	935	1 243	...	...
Chlorate	576	514	1 198	...	...
Nitrate	159	165	230	...	...
Brazil					
Sulphate	29 409	32 824	28 382	34 904	46 944
Chloride	884 330	1 157 614	1 554 049	1 602 315	1 758 874
Other potassic fertilisers	17 749	13 650	24 040	23 416	24 224
Caustic potash	2 083	6 066	3 351	2 152	2 555
Carbonate	2 873	4 191	3 724	1 405	610
Nitrate	8 274	3 485	15 667	21 371	22 226
Colombia					
Chloride	...	16 700	95 251	...	...
Guyana					
Potassic fertilisers	5 351	3 486	3 482	661	...

Potash

Imports of Potash

tonnes

Country	1975	1976	1977	1978	1979
Uruguay					
Caustic potash	158	21	29	25	36
Nitrate	21	8	15	105	5
Venezuela					
Chloride	12 359	3	11 002	5	...
Caustic potash	457	69	350	210	...
Carbonate	100	124	303	194	...
Chlorate	343	369	390	452	...
Nitrate	4 475	115	2 285	2 588	...
Brunei					
Potassic fertilisers	92	3 127	1 101	11	...
China					
Potassic fertilisers	* 139 000	...	...	...	...
Cyprus					
Potassic fertilisers	1 225	270	765	606	...
Hong Kong					
Caustic potash	36	75	473	67	83
Carbonate	137	107	180	226	198
Chlorate	26	109	13	57	237
Nitrate	435	709	747	598	158
India (b)					
Sulphate	6	1 000	6 702	10 665	...
Chloride	233 272	291 251	626 048	347 478	...
Other potassic fertilisers	53 012	112 682	162 677	67 282	...
Caustic potash	...	926	765	68	...
Carbonate	...	33	14	40	...
Indonesia					
Sulphate	3 614	7 249	3 572	315	2 950
Other potassic fertilisers	25 119	35 152	34 401	107 352	107 175
Caustic potash	706	196	273	507	366
Nitrate	355	476	369	798	547
Iran (c)					
Potassic fertilisers	2 023	47	...	...	...
Caustic potash	149	297	...	...	...
Japan					
Sulphate (fertiliser grade)	152 961	118 087	177 500	200 703	208 435
Chloride	1 216 454	972 586	1 102 303	1 088 061	1 098 918
Other potassic fertilisers	15 711	18 499	30 936	33 687	34 419
Sulphate (chemical grade)	24 594	11 076	11 337	8 596	3 050
Jordan					
Potassic fertilisers	961	4 425	—	1 850	994
Korea, Republic of					
Sulphate	34 420	33 655	30 910	...	...
Chlorides	297 950	195 757	96 393	...	...
Other potassic fertilisers	5 506	—	36 168	...	...
Caustic potash	485	1 035	1 315	...	...
Carbonate	1 061	1 277	2 215	...	...
Chlorate	6	36	—	...	...
Nitrate	3 357	507	492	...	...
Malaysia					
Fertiliser salts	928	10 716	24 826	...	...
Potassic fertilisers	168 418	229 208	239 726	...	...
Philippines					
Sulphate	4 500	4 600	4 800	4 560	8 246
Other potassic fertilisers	85 868	68 819	65 041	5 380	99 245
Caustic potash	108	25	383	444	819
Carbonate	151	101	254	294	401
Singapore					
Potassic fertilisers	194 850	186 924	260 396	247 697	270 786

Imports of Potash

Country	1975	1976	1977	1978	1979
Sri Lanka					
Potassic fertilisers	...	28 301	...	20 786	...
Taiwan					
Chloride	198 894	170 133	165 092	107 110	161 647
Caustic potash	347	1 249	2 610	1 183	1 425
Carbonate	1 508	2 968	3 252	3 655	4 770
Nitrate	94	501	922	695	1 619
Thailand					
Sulphate	6 504	5 500	550	3 000	...
Chloride	6 401	150	3 630	15 952	...
Other potassic fertilisers	13 075	6 800	2 750	3 800	...
Caustic potash	33	307	909	493	...
Chlorate	225	240	289	160	...
Nitrate	1 799	4 505	5 967	2 016	...
Australia (d)					
Sulphate	12 552	9 428	24 962	18 213	...
Chloride	198 555	100 542	140 448	143 594	...
Other potassic fertilisers	1	219	61	90	...
Caustic potash	2 762	1 190	2 449	2 264	...
Carbonate	2 228	958	1 237	1 376	...
Nitrate	6 084	5 879	285	3 823	...
Other compounds	605	137	218	512	...
Fiji					
Potassic fertilisers	2 690	1 924	3 072	...	...
New Zealand (d)					
Sulphate	3 381	2 906	2 000	4 479	1 134
Chloride	233 448	194 988	226 088	230 502	220 463
Other potassic fertilisers	254	26	—	592	136
Caustic potash	787	96	308	809	382
Nitrate	663	317	431	421	1 396

Note: Potassium sulphate and chloride shown in this table refer to fertiliser grade [Standard International Trade Classification (Revision 2) code 562.3] unless otherwise stated. Those shown as chemical grade relate to S.I.T.C. code 523.

- (a) K₂O content
- (b) Years ended 31 March following that stated
- (c) Years ended 20 March following that stated
- (d) Years ended 30 June of that stated
- (e) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any
- (f) Figures up to 1977 include sodium hydroxide
- (g) Including chemical grade
- (h) May include some sodium peroxide

Rare Earths

Production of Rare Earth Minerals

tonnes

Country	1975	1976	1977	1978	1979
Burundi					
Bastnaesite	82	139	165	40	30
Nigeria					
Monazite	* 20	* 20	* 20	* 20	* 20
Zaire					
Monazite	298	125	96	77	92
USA					
Bastnaesite (a)	14 940	13 039	15 359	14 148	16 515
Monazite (a)	* 750	* 600	* 600	* 1 250	* 1 200
Brazil					
Monazite	...	1 610	2 441	2 541	* 2 500
India					
Monazite	* 3 000	* 3 000	* 3 000	* 3 000	* 3 000
Malaysia					
Monazite (b)	3 285	1 879	1 976	1 263	1 996
Xenotime (b)	25	79	35	—	—
Sri Lanka					
Monazite	6	1	—	18	4
Thailand					
Monazite	367	—	—	—	...
Xenotime	—	—	50	—	...
Australia					
Monazite	4 507	5 310	9 379	14 992	* 16 206
Xenotime	20	7	12	23	...
World total (c)(d)	38 800	34 900	43 800	47 600	53 400
World total (REO content)	* 23 200	* 20 900	* 26 200	* 28 500	* 32 000

Note: With the exception of the data for USA, figures in this table refer to gross tonnage of rare earth concentrates

(a) REO content

(b) Exports

(c) Expressed as weight of concentrates produced; USA production has been grossed up to concentrate equivalent on the assumption that both its bastnaesite and monazite concentrates contain 60% REO

(d) Rare earth minerals are also believed to be produced in China (about 150 tonnes REO) and the Soviet Union (about 2 300 tonnes REO) and possibly, on a small scale, in Indonesia, Democratic Republic of Korea and South Africa. In addition to this, a few countries recover rare earths from the ores of uranium, gold and phosphate. Amongst these countries are Canada and the Soviet Union

Exports of Rare Earths

Country	1975	1976	1977	1978	1979
United Kingdom					
Ferro-cerium & other pyrophoric alloys	57	35	32	29	22
Metals	96	7	17	110	48
France					
Cerium compounds	1 052	2 013	2 951	1 579	...
Other rare earth compounds	204	939	1 411	2 128	...
Ferro-cerium & other pyrophoric alloys	41	63	64	20	10
Metals	40	22	20	13	109
Germany, Federal Republic of					
Cerium compounds	106	484	1 264	943	1 773
Other rare earth compounds	694	197	289	220	126
Ferro-cerium & other pyrophoric alloys	90	61	58	62	39
Metals	48	148	445	249	154
Italy					
Ferro-cerium & other pyrophoric alloys	1	0	2	1	...
Metals	18	7	218	141	106
Austria					
Metals	400	596	585	310	300
Algeria					
Cerium metal	202	...	477	245	...
South Africa					
Rare earth compounds	...	£2 800	£22 900	£1 550	£1 500
Ferro-cerium & other pyrophoric alloys	...	£4 990	£11 900	£15 000	£5 500
USA					
Ores & concentrates (a)	* 3 100	* 2 400	* 4 000	* 4 500	* 5 000
Rare earth compounds	665	287	878	...	...
Ferro-cerium & other pyrophoric alloys	363	56	239	17	38
Brazil					
Cerium compounds	...	1 090	734	530	120
Ferro-cerium & other pyrophoric alloys	12	189	481	592	...
Metals	212	46	48	29	4
Japan					
Ferro-cerium & other pyrophoric alloys	80	74	76	81	76
Malaysia					
Ores & concentrates	3 338	2 018	2 050	...	...
Thailand					
Ores & concentrates	400	...	114	696	...
Australia					
Ores & concentrates	2 510	3 154	7 544	11 600	13 154

Notes:

- Trade in rare earth compounds has been omitted from this table in those cases where it is not separately distinguished from the trade in compounds of thorium and uranium, as under the Standard International Trade Classification (Revision 2), item 524.92
 - Rare earths are here taken to include yttrium and scandium; the term 'metals' includes intermixtures and interalloys thereof
- a) REO content of bastnaesite

Rare Earths

Imports of Rare Earths

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates (a)	780	349	...	...	...
Ferro-cerium & other pyrophoric alloys	19	4	4	25	30
Metals	...	...	7	29	95
Belgium-Luxembourg					
Cerium compounds	42	32	35	15	53
Other rare earth compounds	2	2	4	18	6
Ferro-cerium & other pyrophoric alloys	3	3	2	1	1
Denmark					
Cerium compounds	1	2	5	1	...
Ferro-cerium & other pyrophoric alloys	4	7	4	3	...
France					
Cerium compounds	79	94	131	127	149
Other rare earth compounds	277	140	507	367	423
Ferro-cerium & other pyrophoric alloys	43	32	34	43	119
Metals	227	26	55	88	15
Germany, Federal Republic of					
Cerium compounds	551	807	819	831	965
Other rare earth compounds	85	193	198	146	230
Ferro-cerium & other pyrophoric alloys	55	30	44	67	37
Metals	103	78	155	110	107
Italy					
Ferro-cerium & other pyrophoric alloys	10	14	13	12	...
Metals	317	371	441	122	117
Netherlands					
Cerium compounds	54	539	1 178	1 356	1 075
Other rare earth compounds	23	254	44	36	54
Metals	0	0	—	1	5
Austria					
Ferro-cerium & other pyrophoric alloys	3	2	0	...	...
Metals	0	27	45	6	170
Finland					
Ferro-cerium & other pyrophoric alloys	1	...	1	1	4
Norway					
Ferro-cerium & other pyrophoric alloys	5	3	2	...	...
Portugal					
Ferro-cerium & other pyrophoric alloys	2	3	3	4	...
Switzerland					
Ferro-cerium & other pyrophoric alloys	6	0	9	4	4
Metals	2	1	3	3	7
Turkey					
Metals	—	2	—	7	2
South Africa					
Rare earth compounds	£91 600	£51 600	£30 100	£68 800	£130 100
Ferro-cerium & other pyrophoric alloys	7	6	7	16	7

Imports of Rare Earths

Country	1975	1976	1977	1978	1979
USA					
Ores & concentrates	2 328	1 908	4 978	6 944	6 288
Cerium compounds	7	8	6	3	6
Other rare earth compounds	...	...	...	169	385
Ferro-cerium & other pyrophoric alloys	15	18	21	59	56
Metals	10	21	227	378	70
Argentina					
Cerium compounds	13	12	15	...	...
Other rare earth compounds	3	5	2	...	...
Ferro-cerium & other pyrophoric alloys	0	0	1	...	...
Metals	9	8	14	...	...
Brazil					
Cerium compounds	15	15	30	23	65
Ferro-cerium & other pyrophoric alloys	6	3	5	0	0
Metals	1	1	1	3	14
Venezuela					
Ferro-cerium & other pyrophoric alloys	2	3	4	8	...
Hong Kong					
Rare earth compounds	4	2	6	9	4
Indonesia					
Ferro-cerium & other pyrophoric alloys	12	90	33	47	58
Japan					
Cerium compounds	...	120	173	62	70
Other rare earth compounds	...	2 563	2 864	3 226	4 648
Ferro-cerium & other pyrophoric alloys	9	14	10	13	15
Metals	...	3	48	53	86

Notes:

- 1 Trade in rare earth compounds has been omitted from this table in those cases where it is not separately distinguished from the trade in compounds of thorium and uranium, as under the *Standard International Trade Classification (Revision 2)*, item 524.92
- 2 Rare earths are here taken to include yttrium and scandium; the term "metals" includes intermixtures and interalloys thereof

(a) REO content

Salt

Production of Salt

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Rock salt	754 000	611 000	905 000	1 311 000	1 590 000
Brine salt	1 740 000	1 918 000	1 871 000	1 760 000	1 915 000
Salt in brine (a)	5 136 000	5 477 000	5 426 000	4 239 000	4 315 000
Denmark	244 295	349 020	313 717	325 093	380 448
France					
Rock salt	371 000	618 000	603 000	966 500	1 274 000
Salt in brine	3 054 000	3 300 000	3 490 000	4 100 000	5 042 000
Sea salt	1 127 000	1 431 000	557 000	864 500	1 814 000
Germany, Federal Republic of					
Rock salt	5 378 996	6 623 000	7 409 000	7 211 000	9 270 000
Brine salt	785 853	816 000	841 000	868 313	893 000
Salt in brine	3 151 093	4 105 000	4 306 454	4 880 030	5 182 885
Italy					
Rock salt & brine salt	3 212 364	3 410 280	3 600 388	3 721 266	4 531 558
Sea salt	945 791	433 236	600 000	...	...
Netherlands (b)	2 690 000	3 026 000	3 111 000	2 939 000	3 951 000
Albania	* 50 000	* 50 000	* 50 000	* 50 000	* 64 000
Austria					
Rock salt	899	953	1 031	1 173	968
Evaporated salt	257 848	332 330	323 345	320 886	380 329
Bulgaria	* 88 900	* 75 000	* 87 000	* 90 000	* 90 000
Czechoslovakia	322 603	336 439	348 085	351 293	372 277
German Democratic Republic	2 430 100	2 559 600	2 642 000	2 741 000	* 2 744 000
Greece	175 659	140 918	191 029	124 711	* 140 000
Malta (c)	800	800	797	759	* 1 000
Poland					
Rock salt	1 582 000	1 652 000	1 562 000	1 435 000	1 458 000
Brine salt	324 000	428 000	783 000	880 000	} 2 971 000
Other salt	1 618 000	1 738 000	2 012 000	2 078 000	
Portugal					
Rock salt	293 914	306 492	350 178	316 485	407 226
Sea salt	212 687	163 436	148 484	149 835	* 140 000
Romania	3 833 000	4 210 000	4 535 000	4 739 000	4 720 000
Soviet Union	* 14 300 000	* 14 200 000	* 14 300 000	* 14 500 000	* 14 700 000
Spain					
Rock salt	1 833 440	1 999 869	1 901 335	2 091 919	* 1 300 000
Sea salt	1 276 353	1 136 314	1 175 668	1 252 020	} * 1 360 000
Other salt	22 508	22 198	24 448	25 000	
Switzerland					
Evaporated salt	44 784	38 113	30 599	35 651	} * 390 000
Other salt	145 492	224 509	291 943	311 004	
Turkey	679 296	* 680 000	* 680 000	929 000	* 907 000
Yugoslavia					
Sea salt	38 061	12 881	19 899	20 966	} 350 000
Rock salt	78 466	91 230	85 210	85 231	
Other salt	179 333	185 000	187 865	192 000	
Algeria					
Brine salt & sea salt	125 825	136 316	146 671	171 458	* 163 000
Angola	* 50 000	* 50 000	* 50 000	* 50 000	* 50 000
Cape Verde Is.	20 941	13 701	31 317	16 891	...
Egypt	621 399	606 000	565 000	754 843	* 762 000
Ethiopia (d)	101 794	* 98 000	* 80 000	* 80 000	107 737
Ghana	* 52 000	* 52 000	* 50 000	* 50 000	* 50 000
Kenya	5 553	49 906	39 932	19 827	38 004
Libya	9 434	* 10 000	* 10 000	* 15 400	* 10 000
Madagascar	26 000	27 000	26 000	30 000	* 30 000
Mali	4 000	5 000	* 5 000	* 5 000	* 5 000
Mauritius (c)	5 500	6 000	6 000	* 6 000	* 6 000
Morocco	33 574	15 232	12 442	17 164	* 18 000
Mozambique	32 000	* 28 000	* 28 000	* 28 000	* 28 000
Namibia	* 210 000	* 220 000	* 220 000	* 227 000	* 227 000
Senegal	133 000	142 000	129 731	147 295	* 140 000
South Africa	264 412	223 662	242 254	489 925	538 785
Sudan	67 094	82 817	91 712	72 000	* 91 000

Production of Salt

Country	1975	1976	1977	1978	1979
Tanzania	44 390	46 441	39 118	* 20 000	* 23 000
Tunisia (c)	350 000	285 000	337 000	442 000	421 000
Uganda	* 1 000	* 1 000	* 1 000	* 1 000	* 1 000
Bahamas	1 233 000	1 353 000	1 670 000	1 633 000	1 361 000
Canada					
Rock salt	3 626 123	4 354 684	4 320 304	4 625 322	6 672 000
Other salt (e)	1 496 450	1 639 335	1 719 178	1 826 959	
Costa Rica	15 000	20 000	27 000	34 000	36 000
Cuba	88 407	88 099	79 838	84 544	70 452
Dominican Republic	34 984	36 295	65 798	36 000	36 000
El Salvador (c)	40 519	40 987	* 45 000	* 45 000	* 45 000
Guatemala (c)	8 800	10 924	11 000	11 000	11 000
Honduras	31 000	* 32 000	* 32 000	* 32 000	* 32 000
Mexico	5 354 000	4 591 000	4 899 000	5 485 000	* 5 500 000
Nicaragua (c)	* 12 000	* 14 000	* 16 000	* 18 000	* 18 000
Panama (c)	12 293	12 274	19 567	15 201	15 000
USA (f)					
Rock salt	12 957 000	14 214 000	13 570 000	13 325 000	13 509 000
Salt in brine	19 415 000	20 790 000	20 663 000	20 263 000	22 390 000
Evaporated salt	4 849 000	5 087 000	5 150 000	5 302 000	5 644 000
Argentina					
Rock salt	1 111	1 454	1 594	1 000	1 000
Other salt	1 566 371	659 935	1 145 505	960 000	998 000
Brazil (c)	2 145 345	2 472 638	2 481 330	2 727 000	2 800 000
Chile	292 795	427 766	424 165	394 000	390 000
Colombia					
Rock salt	440 973	338 870	347 020	365 908	350 000
Sea salt	586 547	739 364	594 415	459 559	450 000
Peru	304 215	304 000	310 000	490 000	450 000
Venezuela (c)	290 000	* 300 000	241 000	158 000	155 000
Afghanistan (g)	62 000	72 700	77 700	80 700	* 20 000
Bangladesh	750 000	784 000	542 000	785 490	* 726 000
Burma (b)(c)(h)	129 000	199 000	201 000	243 000	* 230 000
China	* 30 000 000	* 30 000 000	* 17 100 000	* 19 530 000	* 19 958 000
Cyprus	6 096	3 320	—	3 293	5 920
India					
Rock salt	3 330	4 438	3 759	4 281	4 363
Other salt	6 396 670	3 068 000	1 757 000	...	...
Indonesia	52 000	213 000	563 000	* 635 000	* 635 000
Iran (g)	400 000	700 000	700 000	700 000	* 400 000
Iraq	* 64 000	* 64 000	* 60 000	* 82 000	* 82 000
Israel	116 792	86 561	* 100 000	121 563	* 127 000
Japan (i)	1 068 000	1 020 600	1 056 000	1 073 000	* 1 089 000
Jordan (b)	15 943	12 000	12 200	153 000	* 25 000
Korea, Dem. P.R. of	* 544 000	* 544 000	* 540 000	* 540 000	* 540 000
Korea, Republic of	665 330	690 000	794 000	560 000	* 558 000
Kuwait	15 000	15 426	16 703	18 972	19 670
Lebanon (c)	* 35 000	* 35 000	* 35 000	* 12 000	* 12 000
Pakistan					
Rock salt	409 216	417 000	385 000	402 000	* 485 000
Sea salt	127 000	142 000	114 000	217 600	191 400
Philippines (c)	70 625	203 386	200 000	225 650	338 475
Sri Lanka	120 997	140 555	47 104	115 320	121 443
Syria	34 546	54 000	48 400	* 100 000	* 120 000
Taiwan (c)	268 149	496 873	496 058	340 552	366 355
Thailand					
Rock salt	2 600	5 575	12 750	11 839	* 10 900
Other salt	* 150 000	* 160 000	* 160 000	* 160 000	* 160 000

Salt

Production of Salt

tonnes

Country	1975	1976	1977	1978	1979
Vietnam	* 350 000	* 350 000	* 375 000	* 375 000	* 360 000
Yemen Arab Republic	* 50 000	* 100 000	* 75 000	* 27 000	* 90 000
Yemen Democratic Republic	* 75 000	* 75 000	* 75 000	* 75 000	* 75 000
Australia	4 569 561	5 488 753	4 715 873	4 665 000	* 4 535 000
New Zealand	40 000	41 000	53 000	65 000	55 000
World total (j)	162 000 000	168 000 000	155 000 000	161 000 000	170 000 000

Note: This table does not include production of refined salt

(a) Used for purposes other than salt-making

(b) Brine salt

(c) Sea salt

(d) Years ended 6 July of that stated

(e) Including salt in brine

(f) Sold or used by producers

(g) Years ended 20 March following that stated

(h) Years ended 31 March following that stated

(i) Government licensed plants

(j) Salt is known to have been produced in many countries for which statistics are not available. Among these are Democratic Kampuchea, Laos, Martinique, Mauritania, Mongolia, Netherlands Antilles, Nigeria and Somalia

(k) Years ended 30 June of that stated

Exports of Salt

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	518 870	575 964	467 589	404 744	424 187
Belgium-Luxembourg	103 992	106 011	137 723	139 470	144 225
Denmark	81 216	95 917	61 531	67 094	...
France	106 907	128 836	197 195	167 728	230 393
Germany, Federal Republic of	1 588 897	1 820 887	2 021 929	1 934 742	2 499 321
Italy	59 453	91 833	192 611	497 315	1 241 022
Netherlands	1 896 637	2 072 079	1 988 435	1 891 672	2 475 143
German Democratic Republic	1 008 000	1 102 000	1 145 000	1 213 000	...
Norway	2 732	2 553	1 765	1 863	1 594
Poland	245 941	279 900	292 274	307 848	...
Portugal	568	16 311	23 431	4 083	15 422
Romania	678 600	667 500	714 600	780 600	841 200
Soviet Union	320 704	429 767	398 772	402 720	402 660
Spain	36 520	345 941	644 524	816 355	782 339
Sweden	261	5 837	340	2 619	5 037
Switzerland	711	1 004	1 995	377	3 459
Algeria	10 500	21 298	4 400	4 000	...
Cape Verde Islands	12 042	21 850	20 650	14 501	16 301
Egypt	10 151	7 006	72 102	98 925	84 960
Ethiopia	2 354	...	...	—	...
Ivory Coast	538	259	13	53	1 012
Kenya	363	312	815	85	146
Madagascar	1 967	1 845	—	1 342	2 575
Mali	1 000	...	...	...	...
Mozambique	8 577	1 921	558	...	...
Senegal	110 168	77 700	111 809	...	...
South Africa	6 770	19 596	10 672	38 260	53 612
Sudan	128	1 288	681	241	...
Tanzania	8 821	9 141	6 826	6 816	15 554
Tunisia	197 710	267 490	382 015	382 618	...
Uganda	123	35	...	...	...
Bahamas	1 108 960	1 962 561	1 377 565	...	...
Canada	1 569 523	1 423 848	1 163 301	1 608 538	1 822 229
El Salvador	19 270	20 296	23 238	...	...
Honduras	465	507	117	62	...
Mexico	3 622 290	3 281 676	3 691 209	4 289 206	...
Nicaragua	7 143	8 413	...	...	4 904
USA	1 240 933	913 867	916 507	704 203	1 887 273
Argentina	54 535	24 201	25 395	...	...
Brazil	32 421	1	—	111 679	138 240
India (b)	359 379	240 224	231 607	...	...
Iran (c)	1 974	1 603	...	...	...
Israel (a)	4	63	94	3 136	...
Japan	1 858	1 059	958	2 934	2 774
Jordan	...	2 948	392	...	554
Korea, Republic of	88	221	236	...	...
Kuwait	268	...	2 001	1 510	...
Malaysia	2 443	1 267	995	...	...
Pakistan (d)	...	4 363	8 033	11 236	17 215
Saudi Arabia	3 406	1 726	1 298	...	...
Singapore	12 408	11 996	18 146	17 029	14 131
Taiwan	6 600	7 948	14 078	12 377	16 106

Salt

Exports of Salt

tonnes

Country	1975	1976	1977	1978	1979
Thailand	116 161	90 002	77 157	92 942	...
Australia	3 651 644	4 258 319	4 057 442	4 652 663	4 508 000

(a) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Years ended 30 June of that stated

Imports of Salt

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	19 938	19 515	84 758	235 753	748 017
Belgium-Luxembourg	796 035	934 670	906 665	805 395	1 218 636
Denmark	122 124	205 686	377 889	279 107	...
France	131 412	127 494	156 397	104 968	187 546
Germany, Federal Republic of	641 976	776 954	795 845	700 421	914 847
Irish Republic	65 249	69 429	72 259	77 248	87 656
Italy	41 211	139 149	205 703	148 252	240 245
Netherlands	24 318	32 123	27 057	39 567	313 733
Austria	494	107	29 678	63 418	49 453
Faeroe Islands	31 988	20 014	27 545	20 106	...
Finland	513 996	480 889	482 916	547 251	659 660
Greece	79	1 040	—	42 928	7 468
Greenland	614	405	1 976	5 015	...
Hungary	478 000	477 000	512 547	659 959	683 251
Iceland	56 584	35 931	48 913	56 998	49 243
Malta	35 300	57 900	86 600	85 000	102 700
Norway	313 300	288 615	343 767	340 717	455 230
Portugal	33 045	15 011	22 110	92 812	47 819
Spain	5 854	2 629	4 417	1 999	838
Sweden	1 222 025	1 210 308	1 306 462	1 239 766	1 195 040
Switzerland	2 143	1 737	1 735	1 840	1 967
Turkey	25	41 613	76 964	132 293	50 015
Yugoslavia	113 547	141 761	158 055	149 216	194 103
Cameroon	20 417	28 980	37 394	27 264	...
Canary Islands	425	290	287	236	423
Central African Empire	4 075	6 940	3 142	...	...
Chad	4 731	...	...	...	...
Congo	3 034	2 106	2 424	1 507	...
Gabon	1 914	1 685	...	...	...
Ivory Coast	32 920	30 716	36 267	38 852	43 850
Kenya	961	1 914	19 364	35 354	27 981
Liberia	2 998	372	4 003	300	...
Libya	3 068	863	4 878	7 745	...
Madagascar	108	17	16	22	38
Malawi	10 735	10 669	11 930	3 434	...
Mali	23 700	32 600	...	...	...
Mauritius	394	392	797	...	...
Morocco	11	4	5	9 103	9 454
Mozambique	118	271	...	...	...
Niger	...	6 785	...	...	...
Nigeria	199 466	289 859	...	...	...
Reunion	...	1 868	3 489	...	...
Seychelles	382	252	...	...	...
Sierra Leone	8 681	6 710	8 833	5 773	7 123
South Africa	48 491	46 585	35 637	15 142	23 420
Tanzania	1 173	2 240	...	...	...
Togo	6 188	6 428	4 748	...	...
Uganda	16 985	14 345	...	...	...
Upper Volta	18 634	14 960	...	...	...
Zaire	19 723	31 748	41 622	...	...
Zambia	24 506	13 091	38 316	...	...

Salt

Imports of Salt

tonnes

Country	1975	1976	1977	1978	1979
Bahamas	28 208	22 844	7 860	...	...
Barbados	108	4 694	2 231	16	...
Belize	94	665	971	...	...
Canada	1 183 144	1 523 345	1 126 226	1 330 465	1 276 171
Costa Rica	7 691	8 931	4 005	...	...
Dominica	358	...	508	...	...
Guadeloupe	2 617	2 163	2 940	2 061	...
Guatemala	19 060	18 924	19 440	...	...
Honduras	190	133	396	210	...
Jamaica	16 065	1 477	16 100	9 307	...
Martinique	2 377	2 642	1 968	2 232	...
Mexico	817	1 548	1 022	1 378	...
Nicaragua	26 464	34 181	...	...	16 513
Panama	1 780	614	725	...	...
St Kitts-Nevis-Anguilla	123	57	235	...	...
St Lucia	765	2 138	983	572	...
St Vincent	434	565	...	...	...
Trinidad & Tobago	13 043	9 156	13 119	18 112	...
USA	2 917 000	3 948 000	4 109 000	4 881 000	4 785 000
Brazil	144	5	68	15	1
French Guiana	166	198	389	234	...
Guyana	5 504	3 349	5 338	4 090	...
Paraguay	22 965	23 687	24 895	23 036	22 490
Surinam	1 915	1 521	1 333	...	...
Uruguay	54 892	74 668	51 855	55 217	62 098
Abu Dhabi	584	981	1 253	883	6 806
Brunei	3 012	4 745	5 707	1 026	...
Cyprus	505	504	2 067	6 446	...
Hong Kong	42 162	54 306	55 144	37 895	73 206
India	399	252	558	1 042	...
Indonesia	181 246	319 684	2 327	2 734	2 605
Iran (a)	283	28	...	...	...
Japan	6 301 192	6 341 503	6 415 321	6 436 106	6 817 626
Jordan	—	250	1 657	1 410	1 739
Korea, Republic of	311 581	517 967	380 315	...	...
Kuwait	4 523	...	5 186	5 674	...
Malaysia	115 764	114 182	142 166	...	...
Philippines	46 263	55 151	61 600	45 261	63 989
Qatar	764	1 891	1 336	1 666	...
Saudi Arabia	1 784	4 780	4 331	...	...
Singapore	39 941	46 898	51 090	50 993	47 139
Syria	32	673	21	3	...
Taiwan	375 460	1 260 842	393 350	492 717	677 419
Thailand	149	209	293	273	...
Australia	13 603	33 051	24 752	19 444	19 620
Fiji	2 170	2 546	537	...	...
New Zealand (b)	26 636	48 080	61 859	58 737	32 610
Papua New Guinea (b)	3 774	3 208	...	...	...
Solomon Islands	445	382	689	501	897
Vanuatu	* 163	52	...	...	...
Western Samoa	298	729	684	702	...

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

Production of Sillimanite Minerals

tonnes

Country	1975	1976	1977	1978	1979
France					
Andalusite	9 708	18 131	26 834	32 572	28 982
Soviet Union					
Kyanite (a)	* 50 000	* 50 000	* 50 000	* 50 000	* 50 000
Spain					
Andalusite & kyanite	5 042	5 541	2 981	5 087	* 6 000
South Africa					
Andalusite	77 149	77 464	113 076	112 040	134 177
Sillimanite	16 911	25 733	15 455	9 540	19 574
USA					
Kyanite (b)	* 90 000	* 91 000	* 100 000	* 100 000	* 100 000
Brazil					
Kyanite	230	256	110	6 908	* 7 000
India					
Andalusite	...	...	387	225	—
Kyanite	53 474	48 779	42 123	30 897	39 016
Sillimanite	8 278	14 859	15 023	13 471	15 736
Korea, Republic of					
Andalusite	106	520	115	61	60
Australia					
Sillimanite (c)	588	567	550	708	550
World total (d)	311 500	332 900	366 700	360 500	401 100

(a) May include other sillimanite minerals

(b) Includes related minerals

(c) Excluding sillimanite clay

(d) In addition synthetic mullite is known to have been produced in other countries including Denmark, France, Federal Republic of Germany, Hungary, Italy, Japan, Soviet Union, Spain, Yugoslavia, United Kingdom and the USA

Sillimanite

Exports of Sillimanite Minerals

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Sillimanite minerals	(d) 5 921	4 126	4 601	4 959	4 889
Belgium-Luxembourg					
Sillimanite minerals –					
Crude	689	200	129	62	30
Other	2 245	981	651	405	162
France					
Sillimanite minerals –					
Crude	26	72	72	16	10
Other	2 312	4 391	5 809	2 074	163
Germany, Federal Republic of					
Sillimanite minerals –					
Crude	424	344	356	540	1 974
Calcined	5 058	2 351	5 190	5 659	7 538
Italy					
Sillimanite minerals –					
Crude & calcined	—	25	—	—	734
Other	97	45	1	—	273
Netherlands					
Sillimanite minerals –					
Crude (b)	162	458	413	54	275
Other (b)	1 595	1 356	267	207	244
South Africa					
Andalusite	23 773	16 357	71 739	54 457	72 972
Sillimanite	16 524	12 960	14 235	14 195	17 807
USA					
Kyanite & related minerals (a)	136 412	57 451	35 254	* 36 000	* 36 000
Brazil					
Kyanite	...	...	3 019	1 874	...
India					
Kyanite –					
Crude	10 314	6 096	6 052	...	...
Calcined	7 798	5 295	2 778	...	...
Sillimanite	100	455	550	151	...
Iran (c)					
Sillimanite minerals, chamotte & dinas earth	2 258	1 168	...	...	...
Japan					
Sillimanite minerals, chamotte & dinas earth	8 592	10 165	16 496	16 470	22 721

Note: In this table 'Sillimanite minerals' is understood to include any or all of andalusite, kyanite, sillimanite and mullite

(a) Including mullite

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(c) Years ended 20 March following that stated

(d) Includes chamotte and dinas earth

Imports of Sillimanite Minerals

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Sillimanite minerals	(c) 44 315	31 147	62 979	37 480	35 523
Belgium-Luxembourg					
Sillimanite minerals –					
Crude	10 362	3 204	770	982	441
Other	692	481	1 563	1 331	1 572
France					
Sillimanite minerals –					
Crude	3 111	1 418	2 274	2 930	2 782
Other	4 017	2 495	2 576	3 266	2 344
Germany, Federal Republic of					
Sillimanite minerals –					
Crude	18 716	14 889	19 444	15 327	22 120
Calcined	4 997	18 234	34 878	41 931	43 192
Italy					
Sillimanite minerals –					
Crude	5 660	5 517	4 508	6 851	10 277
Other	5 294	3 137	16 401	6 015	7 366
Netherlands					
Sillimanite minerals –					
Crude (b)	1 514	87	189	1 726	1 114
Other (b)	1 706	490	345	417	350
Greece					
Sillimanite minerals	...	2 790	92	...	741
Norway					
Sillimanite minerals, chamotte & dinas earth	2 729	1 826	1 091	1 538	1 127
USA					
Sillimanite minerals	59	100	48	...	...
Argentina					
Sillimanite minerals	116	124	306	...	...
Iran (a)					
Sillimanite minerals, chamotte & dinas earth	534	2 557	...	...	...
Japan					
Sillimanite minerals	23 541	22 139	22 432	22 987	22 801
Mullite, chamotte & dinas earth	72 014	39 690	48 768	50 534	77 961
Australia					
Sillimanite minerals & dinas earth	1 612	1 304	1 451	385	...

Note: In this table 'Sillimanite minerals' is understood to include any or all of andalusite, kyanite, sillimanite and mullite

(a) Years ended 20 March following that stated

(b) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(c) Includes chamotte and dinas earth

Silver

Mine Production of Silver

kilograms (metal content)

Country	1975	1976	1977	1978	1979
United Kingdom (d)	4 354	3 345	4 166	1 272	—
France	48 790	84 632	93 449	85 667	74 900
Germany, Federal Republic of	33 600	32 000	33 000	24 900	32 300
Irish Republic	39 200	29 000	29 100	19 600	32 900
Italy (a)	36 368	48 403	37 543	30 708	33 121
Bulgaria	* 25 000	* 28 000	* 25 000	* 28 000	* 25 000
Czechoslovakia	* 37 000	* 37 000	* 37 000	* 36 000	* 35 000
Finland (a)	23 160	24 070	25 824	35 245	31 966
German Democratic Republic	* 55 000	* 50 000	* 50 000	* 50 000	* 48 000
Greece	29 800	57 400	33 300	42 300	54 500
Greenland	12 400	14 900	16 200	17 400	16 900
Poland	* 450 000	* 550 000	* 644 000	* 680 000	* 702 000
Portugal	774	881	801	703	* 1 000
Romania	* 47 000	* 38 000	* 35 000	* 32 000	* 30 000
Soviet Union	* 1 340 000	* 1 370 000	* 1 400 000	* 1 430 000	1 430 000
Spain (a)	107 218	115 152	92 256	90 991	97 300
Sweden	140 442	143 617	169 153	263 556	* 180 000
Yugoslavia (a)	143 595	144 000	145 500	159 400	162 000
Algeria	* 3 732	* 2 500	* 1 250	* 3 100	* 3 100
Morocco	26 837	21 066	21 739	12 652	* 13 500
Namibia	43 500	34 200	40 400	43 500	48 200
South Africa	95 923	87 736	97 364	96 559	100 664
Tunisia	9 095	7 850	7 351	1 962	3 170
Zaire	88 990	80 562	110 340	113 544	111 710
Zambia (d)	31 100	33 100	45 000	32 000	31 100
Zimbabwe	7 533	6 228	6 442	34 505	30 418
Canada	1 234 642	1 281 437	1 313 685	1 266 927	1 184 000
Dominican Republic	3 390	28 212	42 216	57 343	70 249
El Salvador	5 591	5 088	3 484	5 754	6 220
Honduras	118 258	99 036	87 683	86 719	68 000
Mexico	1 182 822	1 326 243	1 462 798	1 579 393	1 609 000
Nicaragua	10 100	6 345	4 759	14 992	9 953
USA	1 086 706	1 067 752	1 187 123	1 225 050	1 152 970
Argentina	72 046	69 993	76 225	67 300	56 000
Bolivia	155 702	176 914	183 098	200 284	178 592
Brazil	7 323	626	11 583	15 723	9 950
Chile	193 960	228 350	263 179	255 374	271 836
Colombia	2 727	3 288	2 833	2 388	* 3 000
Ecuador	1 152	1 471	1 776	1 991	2 200
Peru (c)	1 058 350	1 117 325	1 235 801	1 152 255	1 150 000
Burma	23 300	21 800	24 600	25 000	39 500
China	* 30 000	* 30 000	* 31 000	* 46 600	* 62 200
India	2 582	3 183	13 228	12 083	11 502
Indonesia	4 758	3 397	2 832	2 506	1 645
Japan	243 625	259 457	285 673	281 640	269 500
Korea, Dem. P.R. of	* 55 000	* 50 000	* 50 000	* 50 000	* 48 000
Korea, Republic of	46 780	57 793	65 512	43 073	70 848
Philippines	50 373	46 053	50 429	50 930	56 928
Taiwan	193	3 109	2 112	2 343	2 656
Australia	726 218	778 658	856 110	775 548	826 612
Fiji	871	615	457	323	324
Papua New Guinea (b)	44 638	44 880	45 186	53 126	* 45 100
New Zealand	62	16	236	63	51
World total	9 242 000	9 755 000	10 505 000	10 640 000	10 536 000

(a) Smelter and/or refinery production

(b) Years ended 30 June of that stated

(c) Recoverable

(d) Recovered as a byproduct of base metal refining

Exports of Silver

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	1 588 035	2 137 734	1 649 353	1 705 080	1 668 387
Waste & scrap	46 436	176 042	516 939	310 182	552 346
Belgium-Luxembourg					
Metal	785 916	753 015	708 268	639 178	661 338
Denmark					
Metal	8 308	21 503	17 424	27 232	...
France					
Metal	570 382	472 648	897 453	428 783	401 468
Waste & scrap	146 259	154 695	287 371	308 164	459 869
Germany, Federal Republic of					
Metal	789 246	947 578	889 057	1 032 626	844 323
Waste & scrap	26 690	617 990	86 006	90 135	162 526
Italy					
Metal	39 400	31 181	37 200	33 831	106 400
Netherlands					
Metal	90 702	230 890	493 564	277 663	314 142
Austria					
Metal	22 000	27 100	36 300	60 200	81 934
Waste & scrap	3 200	25 100	—	1 000	15 038
Finland					
Metal	18 983	6 946	17 926	22 430	17 277
Norway					
Metal	29 853	33 332	36 965	24 160	23 306
Poland					
Metal	...	285 000	333 000	348 000	...
Spain					
Metal	32 712	1 013	1 442	52 000	104 000
Sweden					
Metal	254 000	171 000	208 000	245 000	227 000
Switzerland					
Metal	832 423	860 322	1 087 182	1 212 793	1 040 984
Yugoslavia					
Metal	114 895	110 495	87 246	67 369	91 082
Waste & scrap	...	...	...	2 657	4 604
Morocco					
Metal	26 778	26 333	22 306	18 036	39 150
South Africa (d)					
Metal	* 65 000	* 60 000	* 65 000	* 70 900	* 89 600
Tunisia					
Metal	2 600	5 012	7 000	—	...
Canada					
Ores & concentrates (b)	471 421	435 800	464 086	479 827	414 534
Metal	753 811	961 552	1 144 873	1 077 059	918 838
El Salvador					
Metal	5 487	5 242	3 489	...	...
Honduras					
Concentrates (b)	95 619	99 840	82 710	85 920	...
Metal	4 112	5 974	50 426	33 181	...
Mexico					
Ores & concentrates (c)	32 140 216	32 819 000	29 315 035	29 285 168	...
Metal (e)	891 346	830 618	711 573	816 863	...
Nicaragua					
Metal	4 431	3 738	...	18 787	8 786
USA					
Ores & concentrates (b)	1 959	4 960	3 038	1 065	1 355
Metal	1 013 007	405 690	364 861	339 469	540 636
Waste & scrap	310 518	213 977	426 467	393 004	596 914
Argentina					
Metal	1	1 017	114	...	...
Bolivia					
Ores & concentrates (b)	203 638	176 914	209 294	197 746	181 399

Silver

Exports of Silver

kilograms

Country	1975	1976	1977	1978	1979
Peru					
Ores & concentrates (b)	415 894	...	...	...	...
Metal	566 055	667 720	777 593	700 885	...
Alloys (b)	97 243	...	...	...	...
Burma					
Metal	10 010	...	...	...	...
Hong Kong					
Metal (Re-exports)	88 112	29 435	20 094	13 341	45 266
India					
Metal	1 316 381	1 271 354	532 101	562 284	...
Japan					
Metal	264 479	112 613	69 260	97 554	121 210
Waste & scrap	1 000	...	5 000	15 000	24 000
Korea, Republic of					
Metal	38 524	74 706	32 696	...	...
Philippines					
Metal	1 966	2 746	282	3 041	5 232
Singapore					
Metal	2 325	100	539	2 268	2 869
Thailand					
Metal	19 427	29 000	30 012	11 487	...
Australia					
Silver-lead bullion	306 589	376 596	370 849	290 207	286 168
Silver in all ores, concentrates etc.	133 714	141 911	153 687	166 102	147 940
Metal	126 998	100 140	134 955	85 496	83 208
Fiji					
Metal	1 383	733	401	...	...
Papua New Guinea					
Metal (a)	44 638	44 880	45 186	...	...

Notes:

- 1 This table excludes silver coin but includes silver shipped for minting
- 2 In this table the term 'metal' as used here includes both unwrought and partly worked silver and alloys

(a) Years ended 30 June of that stated

(b) Ag content

(c) Gross weight

(d) IGS estimates, based on known imports into certain countries

(e) Refined only

Imports of Silver

Country	1975	1976	1977	1978	1979
United Kingdom					
Metal	2 519 044	1 560 198	1 118 911	1 450 508	1 220 010
Waste & scrap	244 683	547 200	386 674	364 756	701 254
Belgium-Luxembourg					
Metal	566 257	646 382	1 246 443	864 801	768 940
Denmark					
Metal	60 858	96 839	76 066	81 684	...
France					
Metal	1 085 231	1 482 256	1 535 899	1 343 305	931 601
Waste & scrap	19 783	26 177	48 779	192 624	76 389
Germany, Federal Republic of					
Metal	985 117	1 322 775	1 658 856	1 358 517	1 288 516
Waste & scrap	370 133	601 930	592 945	663 247	595 016
Italy					
Metal	849 100	951 851	924 600	897 658	768 500
Netherlands					
Metal	189 434	485 583	281 530	251 933	146 279
Austria					
Metal	419 600	306 300	451 300	358 700	196 083
Finland					
Metal	82 915	78 285	57 198	48 557	47 622
Greece					
Metal	87 000	95 000	134 000	137 000	132 000
Iceland					
Metal	...	1 500	1 500	1 700	853
Malta					
Metal	2 142	3 096	1 913	3 123	2 642
Norway					
Metal	83 637	103 810	136 886	109 842	82 884
Portugal					
Metal (a)	11 908	20 207	35 941	38 979	42 000
Spain					
Metal	151 000	141 000	117 000	59 676	49 957
Sweden					
Metal	303 000	271 000	247 000	466 000	474 000
Switzerland					
Metal	1 288 264	1 074 674	1 183 586	1 120 040	789 323
Turkey					
Metal (b)	4 378	2 046	4 442	6 297	1 000
Yugoslavia					
Metal	48 805	38 034	237 625	39 917	20 746
Algeria					
Metal	1 554	337	11 152	8 068	...
Ivory Coast					
Metal	1 990	6 982	4 641	6 858	4 941
Kenya					
Metal	505	608	554	192	280
Libya					
Metal	12 538	10 791	9 303	15 401	...
Madagascar					
Metal	142	257	417	121	602
Morocco					
Metal	7 020	1 687	3 644	894	623
Nigeria					
Metal	11	39	...	...	...
Senegal					
Metal	3 584	...	5 640	...	...
South Africa					
Metal	124 385	49 756	12 647	29 983	23 013
Tunisia					
Metal	887	460	1 658	741	...
Zaire					
Metal (c)	* 250	* 1 100	* 1 500	* 140	...
Zambia					
Metal	0	46	82	...	...

Silver

Imports of Silver

kilograms

Country	1975	1976	1977	1978	1979
Canada					
Metal	420 088	59 137	33 004	35 576	36 564
Costa Rica					
Metal	277	2 026	963	...	...
Guatemala					
Metal	23	71	313	...	...
Mexico					
Metal	151	234	...	...	...
Nicaragua					
Metal	13	140	...	...	329
Trinidad & Tobago					
Metal	2 351	3 140	3 655	2 379	...
USA					
Ores & concentrates	725 013	556 764	573 777	670 372	588 461
Metal (e)	1 915 932	2 089 800	2 160 191	1 916 299	2 437 713
Waste & scrap	169 565	101 713	60 677	76 763	74 951
Brazil					
Metal	76 896	135 112	135 738	152 080	170 954
Brunei					
Metal	136	401	—	11	...
Cyprus					
Metal	3 585	9 276	10 016	10 989	...
Hong Kong					
Metal	43 011	24 317	27 641	18 538	26 437
Waste & scrap	...	...	...	2 944	8 816
India					
Metal	671	1 767	944	425	...
Indonesia					
Metal	54	497	3 200	506	2 296
Iran (d)					
Metal	39 454	64 552	...	...	...
Japan					
Ores & concentrates	3 450 000	4 250 000	4 000 000	4 109 000	4 113 000
Metal	530 077	638 388	557 127	535 253	731 613
Korea, Republic of					
Metal	3 912	18 978	24 892	...	...
Philippines					
Metal	16	44	1 344	3 061	2 654
Saudi Arabia					
Metal	5 293	11 627	47 944	...	...
Singapore					
Metal	6 597	12 783	13 036	21 377	24 905
Taiwan					
Metal	16 015	65 897	47 774	59 118	118 209
Thailand					
Metal	1 637	144 999	224 572	112 222	...
Australia					
Metal	802	887	2 330	1 115	404
New Zealand (f)					
Metal	(b) 29 501	(b) 52 126	(b) 51 441	(b) 42 766	54 393

Notes:

- 1 This table excludes silver coin but includes silver shipped for minting
- 2 In this table the term 'metal' as used here includes both unwrought and partly worked silver and alloys

- (a) Including scrap
 (b) Including gilt
 (c) IGS estimates, based on part figures given in trade account
 (d) Years ended 20 March following that stated
 (e) Refined only
 (f) Years ended 30 June of that stated

Production of Sulphur and Pyrites

thousand tonnes (sulphur content)

Country		1975	1976	1977	1978	1979
United Kingdom						
Recovered (a)(c)		36	41	58	53	57
Recovered (d)		58	77	60	80	90
Belgium						
Recovered (c)(d)		196	248	257	267	270
Denmark						
Recovered (d)		9	10	11	14	8
France						
Recovered (d)(e)		1 872	1 874	2 020	2 075	2 120
Germany, Federal Republic of						
Pyrites (45%)		221	233	235	221	203
Recovered (c)		361	390	385	380	380
Recovered (d)		114	119	186	190	190
Recovered (e)		384	460	631	650	650
Recovered (i)		202	162	165	160	160
Irish Republic						
Pyrites (47%)		33	30	22	42	14
Italy						
Pyrites (43%)		348	367	371	338	302
Recovered (d)		228	211	259	250	250
Sulphur ore		52	35	63	65	19
Netherlands						
Recovered (c)(d)		* 107	* 105	* 128	* 125	* 125
Austria						
Recovered		25	26	32	31	35
Anhydrite		28	23	27	27	25
Bulgaria						
Pyrites (42%)		* 170	* 280	* 305	* 310	* 315
Recovered		* 77	* 60	* 65	* 70	* 75
Czechoslovakia						
Pyrites (42%)		* 67	* 50	* 55	* 60	* 60
Recovered		* 61	* 10	* 9	* 10	10
Finland						
Pyrites (44%)		332	318	193	150	85
Recovered (c)		347	370	280	232	263
Recovered (d)		15	25	25	29	38
German Democratic Republic						
Pyrites (42%)		* 10	* 10	* 10	* 10	* 10
Recovered		355	243	340	* 350	* 350
Greece						
Pyrites (45%)		73	97	58	62	75
Norway						
Pyrites (45%)		233	188	152	149	118
Poland						
Frasch (g)		4 771	4 891	4 765	5 051	4 830
Recovered (c)(d)		* 255	* 239	* 314	* 315	* 315
Anhydrite		* 55	* 55	* 30	* 20	* 20
Portugal						
Pyrites (44%)		203	183	159	139	154
Recovered (d)		3	3	3	6	...
Romania						
Pyrites (42%)		* 375	* 375	* 395	* 400	* 425
Recovered		* 90	* 98	* 110	* 120	* 130
Soviet Union						
Frasch		* 320	* 500	* 500	* 800	* 800
Pyrites (46%)		* 3 200	* 3 300	* 3 500	* 3 500	* 3 500
Recovered (c)		* 1 890	* 2 040	* 2 180	* 2 210	* 2 210
Recovered (d)		* 190	* 190	* 200	* 200	* 200
Recovered (e)		* 470	* 870	* 920	* 1 100	* 1 100
Recovered (i)		* 40	* 40	* 40	* 40	* 40
Sulphur ore		* 1 870	* 2 200	* 2 400	* 2 700	* 2 700
Spain						
Pyrites (47%)		1 264	1 100	1 099	1 046	* 1 160
Recovered (c)(d)		* 107	* 128	* 136	* 130	* 133

Production of Sulphur and Pyrites

thousand tonnes (sulphur content)

Country		1975	1976	1977	1978	1979
Sweden						
Pyrites	(48%)	211	194	193	232	240
Recovered (c)(d)		130	140	135	130	130
Turkey						
Pyrites	(45%)	11	40	18	18	16
Recovered		60	69	80	80	80
Sulphur ore		19	21	20	28	30
Yugoslavia						
Pyrites	(42%)	145	185	165	171	190
Egypt						
Recovered (d)(e)		10	5	5	3	* 5
Morocco						
Pyrites	(48%)	62	23	45	61	* 60
South Africa						
Pyrites	(48%)	312	353	398	367	319
Recovered (d)		25	27	28	25	* 25
Recovered (c)		80	91	105	100	* 100
Zaire						
Recovered (c)		50	37	31	30	* 30
Zambia						
Pyrites	(42%)	7	9	9	1	1
Recovered		80	91	87	109	* 110
Zimbabwe						
Pyrites	(42%)	28	21	22	23	28
Canada						
Pyrites	(50%)	11	15	12	5	16
Recovered (c)		695	705	736	676	605
Recovered (d)(e)		6 487	6 442	6 500	6 448	6 135
Mexico						
Frasch		2 074	2 054	1 723	1 650	1 960
Recovered (c)		* 52	* 75	* 80	* 100	* 100
Recovered (d)(e)		90	96	133	168	330
Netherlands Antilles						
Recovered (d)		87	95	95	95	95
Trinidad & Tobago						
Recovered (d)		49	55	55	54	55
USA						
Frasch		7 327	6 365	5 915	5 648	6 357
Pyrites	(40%)	241	291	169	301	400
Recovered (c)		855	1 035	1 019	1 164	1 274
Recovered (d)(e)		3 017	3 187	3 624	4 062	4 070
Argentina						
Recovered (c)(d)		22	19	20	20	20
Sulphur ore (f)		10	20	27	34	35
Bolivia (h)						
Sulphur ore		22	15	6	15	14
Brazil						
Recovered (d)		20	30	44	57	55
Chile						
Recovered (c)		26	29	29	21	27
Sulphur ore (b)		21	18	32	32	77
Colombia						
Recovered (d)		2	2	3	3	3
Sulphur ore		30	24	22	18	20
Ecuador						
Recovered (d)(e)		* 8	* 8	* 8	* 10	* 10
Sulphur ore		0	1	1	1	1
Venezuela						
Recovered (d)		82	90	95	95	95
China						
Pyrites	(45%)	* 900	* 900	* 1 000	* 1 100	* 1 200
Recovered		* 120	* 300	* 300	* 350	* 400
Sulphur ore		* 130	* 150	* 170	* 200	* 200
Cyprus						
Pyrites	(44%)	90	83	64	56	20

Production of Sulphur and Pyrites

thousand tonnes (sulphur content)

Country		1975	1976	1977	1978	1979
India						
Pyrites	(37%)	19	19	12	24	27
Recovered (c)		127	111	117	115	* 115
Recovered (d)		6	7	8	8	4
Indonesia						
Sulphur ore		4	3	2	* 2	* 2
Iran						
Recovered (d)		446	399	527	542	335
Sulphur ore		* 100	* 188	* 188	* 150	* 75
Iraq						
Frasch		600	610	655	641	762
Recovered (d)(e)		* 110	* 65	* 55	* 40	* 40
Israel						
Recovered (d)(e)		* 10	* 10	* 10	* 10	* 10
Japan						
Pyrites	(49%)	456	471	389	327	* 330
Recovered (c)(g)		1 199	1 252	1 336	1 296	* 1 350
Recovered (d)		749	925	1 100	1 104	1 189
Korea, Dem. P.R. of						
Pyrites	(40%)	* 260	* 245	* 250	* 255	* 255
Recovered (c)		* 16	* 20	* 12	* 10	* 10
Kuwait						
Recovered (d)(e)		73	75	79	100	114
Pakistan						
Recovered		12	12	12	14	* 14
Philippines						
Pyrites	(46%)	75	77	50	51	* 55
Saudi Arabia						
Recovered (d)(e)		3	3	3	3	...
Singapore						
Recovered (d)		6	7	23	25	* 25
Taiwan						
Pyrites	(36%)	5	3	3	0	0
Recovered		* 2	* 2	* 2	* 2	* 2
Sulphur ore		5	5	8	10	9
Australia						
Pyrites	(48%)	106	108	108	98	* 70
Recovered (c)		335	315	337	322	* 320
Total Frasch		15 100	14 400	13 600	13 800	14 700
Total Pyrites		9 500	9 600	9 500	9 500	9 700
Total Recovered		22 600	23 900	25 600	26 500	26 500
Total Sulphur ore		2 300	2 700	3 000	3 300	3 200
World total (all forms)		49 500	50 600	51 700	53 100	54 100

Note: Pyrites: nominal sulphur content is shown in parentheses

- (a) 'Spent Oxide'
- (b) Includes 'caliche' at 45% S content
- (c) From smelter gases
- (d) From petroleum refining
- (e) From natural gas
- (f) Caliche
- (g) Includes S content of 'sulphur ore'
- (h) Exports
- (i) Other

Exports of Sulphur and Pyrites

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Sulphur –					
Crude	1 941	1 768	1 387	1 421	1 344
Sublimed & precipitated	77	195	211	123	247
Belgium-Luxembourg					
Pyrites	312	57	412	53	522
Sulphur –					
Crude	23 804	36 525	17 255	10 026	11 578
Sublimed & precipitated	92	113	99	635	42
Denmark					
Sulphur –					
Sublimed & precipitated	971	3 621	5 409	4 441	...
France					
Sulphur –					
Crude	538 715	740 815	941 767	1 154 784	1 245 258
Refined	543	681	840	194	361
Sublimed	3 327	2 660	5 847	3 605	2 843
Precipitated	9	34	4	7	157
Germany, Federal Republic of					
Pyrites	500	3 863	636	1 361	1 238
Sulphur –					
Crude	199 018	144 197	341 928	304 693	356 669
Sublimed & precipitated	2 516	2 420	2 496	1 568	1 238
Italy					
Pyrites	40 314	13 632	23 799	3 189	3 375
Sulphur –					
Crude	50	303	60	—	48
Other	4 245	2 870	4 257	3 612	5 400
Sublimed & precipitated	659	126	625	187	142
Netherlands					
Sulphur –					
Crude	7 038	13 180	10 759	9 648	10 997
Sublimed & precipitated	1	2	17	57	18
Finland					
Sulphur –					
Crude	1 423	—	—	8	4
Sublimed & precipitated	9 500	17 630	1 633	—	—
Greece					
Sulphur	10 020	9 532	23 937	20 259	10 756
Norway					
Pyrites	231 251	140 290	59 623	63 139	27 256
Sulphur	21	42	442	2 298	3 283
Poland					
Sulphur	3 080 000	3 530 000	4 399 000	4 294 000	3 895 000
Portugal					
Pyrites	61 820	20 218	782	135	122
Sulphur	221	—	64	92	205
Soviet Union					
Pyrites	1 260 000	873 000	826 000	852 000	915 000
Sulphur	440 978	* 440 000	* 440 000	* 440 000	* 430 000
Spain					
Pyrites –					
Iron	208 216	334 810	243 924	228 372	118 953
Cupreous	—	—	50 328	13 930	8 010
Sulphur –					
Crude	110	1 403	4 437	17 445	14 629
Sublimed & precipitated	65	9 821	16 178	8 508	2 966
Sweden					
Sulphur	0	19 394	19 838	17 332	20 597
Switzerland					
Sulphur –					
Crude	5	11	11	13	15
Sublimed & precipitated	22	4	8	10	5
Yugoslavia					
Pyrites	171 920	209 015	214 214	93 421	75 828
Sulphur	435	1 185	4 235	3 520	5 273

Exports of Sulphur and Pyrites

tonnes

Country	1975	1976	1977	1978	1979
Algeria					
Pyrites	236 012	...	...	...	...
Morocco					
Sulphur	955	—	—	—	—
Canada					
Pyrites	75 000	85 000	114 000	26 000	114 000
Sulphur	3 284 329	3 719 992	4 291 032	4 984 523	5 154 806
Mexico					
Sulphur	1 386 655	1 020 069	1 013 068	1 235 065	...
USA					
Pyrites	1 139	912	1 829	...	...
Sulphur –					
Crude	1 308 303	1 202 173	1 076 237	} 832 581	1 962 851
Sublimed & precipitated	7 131	15 545	11 761		
Bolivia					
Sulphur	21 921	14 883	6 276	14 726	13 532
Venezuela					
Sulphur	7 419	18 929	42 136	28 074	...
Cyprus					
Iron pyrites	408 632	146 853	174 361	123 671	...
Cupreous pyrites	19 778	...	—	—	...
India					
Sulphur –					
Crude	327	311	553	791	...
Sublimed & precipitated	377	488	172	204	...
Iran (a)					
Sulphur –					
Crude	84 535	30 971	...	...	...
Sublimed & precipitated	43 323	287 346	...	...	...
Japan					
Sulphur –					
Crude	117 267	335 660	467 929	320 986	414 884
Sublimed & precipitated	831	457	519	220	221
Kuwait					
Sulphur	1 991	...	70 436	164 257	...
Singapore					
Sulphur –					
Crude	15 541	14 110	13 371	17 137	5 190
Sublimed & precipitated	5 394	8 158	2 075	4 905	16 068
Taiwan					
Sulphur –					
Crude	1 188	902	1 949	2 252	3 695
Sublimed & precipitated	91	206	225	188	139
Australia					
Zinc concentrates (b)	87 500	116 500	87 900	...	...

(a) Years ended 20 March following that stated

(b) Recoverable sulphur

Sulphur and Pyrites

Imports of Sulphur and Pyrites

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Pyrites	28 160	10 604	19 624	1 132 716	1 194 448
Sulphur –					
Crude	938 623	1 177 905	1 110 053		
Sublimed & precipitated	387	5 413	451	561	491
Belgium-Luxembourg					
Pyrites	207 810	220 452	214 322	202 917	195 210
Sulphur –					
Crude	440 100	460 970	451 692	482 732	549 346
Sublimed & precipitated	1 576	540	450	1 076	5 128
Denmark					
Pyrites	36	—	3	31	...
Sulphur –					
Crude	68 942	61 629	63 376	74 146	...
Sublimed & precipitated	734	1 022	119	126	...
France					
Pyrites	52 374	30 991	691	617	672
Sulphur –					
Crude	568 776	504 018	660 584	662 560	715 224
Refined	571	751	704	741	1 153
Sublimed & precipitated	264	267	334	415	412
Germany, Federal Republic of					
Pyrites	498 245	175 247	154 291	116 670	98 943
Sulphur –					
Crude	303 909	480 574	419 352	385 843	385 973
Sublimed & precipitated	519	461	548	572	732
Irish Republic					
Sulphur	27 888	12 374	10 900	8 592	535
Italy					
Pyrites	316 733	161 091	163 487	247 158	286 351
Sulphur –					
Crude	558 158	560 082	622 544	606 052	754 861
Sublimed & precipitated	1 133	1 212	1 897	1 573	1 591
Netherlands					
Pyrites	229	75	61	103	169
Sulphur –					
Crude	347 799	398 392	424 685	452 920	455 504
Sublimed & precipitated	503	277	233	133	248
Austria					
Pyrites	13 558	13 874	10 781	5 856	3 264
Sulphur –					
Crude	112 356	81 419	97 787	101 332	112 019
Sublimed & precipitated	66	2 919	16	234	62
Czechoslovakia					
Pyrites (a)	11 000	9 000	...	...	...
Sulphur	493 000	477 000	422 000	456 000	501 000
Finland					
Sulphur –					
Crude	27 413	10 426	23 349	26 580	42 132
Sublimed & precipitated	4 568	2 001	6 347	1 859	3 205
German Democratic Republic					
Pyrites (a)	48 694	71 473	63 100	39 200	...
Greece					
Pyrites	154 013	106 584	37 198	18 944	14 414
Sulphur	83 740	161 830	68 783	81 004	58 054
Hungary					
Pyrites	88 000	81 417	59 318	81 451	83 518
Sulphur	209 000	143 447	171 477	162 043	167 344
Malta					
Sulphur	323	253	1 850	38	79
Norway					
Sulphur –					
Crude	19 327	17 899	11 926	6 014	2 583
Sublimed & precipitated	33	30	12	13	24

Imports of Sulphur and Pyrites

tonnes

Country	1975	1976	1977	1978	1979
Portugal					
Sulphur					
Crude	27 276	29 870	30 943	43 524	79 746
Sublimed & precipitated	48	37	3	1	1
Soviet Union					
Sulphur	689 999	* 600 000	* 600 000	* 600 000	* 600 000
Spain					
Sulphur –					
Crude	61 674	92 583	168 179	119 401	109 576
Sublimed & precipitated	120	42	21	133	6 230
Sweden					
Pyrites	81 116	102 223	59 715	60 372	26 441
Sulphur –					
Crude	94 015	69 551	56 059	58 377	48 332
Sublimed & precipitated	34	18	15	2	32
Switzerland					
Pyrites	32 081	8 116	24 110	164	16 020
Sulphur –					
Crude	27 816	33 676	44 859	46 656	46 560
Sublimed & precipitated	261	251	287	213	158
Turkey					
Pyrites	100 453	19 605	197 474	116	...
Sulphur –					
Crude	2 004	6 475	26 250	61 085	52 682
Sublimed & precipitated	634	329	126	115	77
Yugoslavia					
Pyrites	101 309	11 980	72 625	19 126	124 227
Sulphur –					
Crude	4 034	12 618	2 428	3 833	12 268
Refined	38 755	35 639	54 301	55 339	54 374
Sublimed & precipitated	1 832	205	1 852	1 763	1 078
Algeria					
Sulphur –					
Crude	82 420	28 940	87 870	76 334	...
Sublimed & precipitated	975	10 804	19 238	8 000	...
Canary Islands					
Sulphur	—	4 195	10 167	5 250	—
Egypt					
Pyrites	62 857	20 179	66 521	23 000	—
Sulphur	38 130	75 954	110 966	83 170	46 177
Ethiopia					
Sulphur	164	...	115	1 325	...
Ivory Coast					
Sulphur	8 017	5 363	5 337	8 750	7 797
Kenya					
Sulphur	614	1 099	2 132	2 526	1 199
Madagascar					
Sulphur	6	11	9	5	23
Mauritius					
Sulphur	11	9	17	...	...
Morocco					
Sulphur –					
Crude	39 115	183 345	427 714	77 136	517 145
Refined	35	85	30 095	297 400	45 407
Sublimed	12	2	5	3	7
Mozambique					
Sulphur	232	5 236	349	...	...
Niger					
Sulphur	6 000	...	...	...	...
Nigeria					
Sulphur	12	865	...	...	...
Senegal					
Sulphur –					
Crude	14	...	15	...	...
Sublimed	18 572	...	20 824	...	...

Imports of Sulphur and Pyrites

tonnes

Country	1975	1976	1977	1978	1979
South Africa					
Pyrites	31	47	30	53	905
Sulphur –					
Crude	260 117	451 480	548 225	638 411	796 177
Sublimed & precipitated	713	1 342	10 236	1 250	1 308
Tanzania					
Sulphur	453	27 679	12 610	10 677	...
Tunisia					
Pyrites	5 000	4	—	—	...
Sulphur	178 912	387 587	406 061	371 584	...
Uganda					
Sulphur	687	17	...	...	...
Zaire					
Sulphur	17 609	7 085	8 686	14 724	...
Zambia					
Sulphur –					
Crude	24	67	68	...	...
Refined	21	16	—	...	...
Precipitated	18 069	18	2 132	...	...
Canada					
Sulphur	14 335	15 717	14 065	8 133	1 699
Costa Rica					
Sulphur	160	100	41	...	...
Cuba					
Sulphur	169 166	153 401	155 173	...	...
El Salvador					
Sulphur	4 520	5 186	5 556	...	...
Guatemala					
Sulphur	182	4 296	4 428	...	...
Jamaica					
Sulphur	4 951	932	9 561	10 818	...
Mexico					
Sulphur	214	756	694	1 111	...
Nicaragua					
Sulphur	230	296	...	...	381
Trinidad & Tobago					
Sulphur	16	24	7 728	23	...
USA					
Pyrites	22 550	30 982	24 730	9 870	31 166
Sulphur	1 927 551	1 754 746	2 010 059	2 177 593	2 494 415
Argentina					
Sulphur	97 221	105 745	80 558	...	...
Brazil					
Sulphur –					
Crude	408 048	606 875	657 252	631 410	671 899
Refined	3 077	1 451	1 412	867	8 142
Sublimed & precipitated	202	222	218	277	317
Colombia					
Sulphur	...	24 750	23 033	...	...
Uruguay					
Sulphur	11 453	11 810	15 735	19	22 452
Venezuela					
Sulphur	44	118	97	115	...
China					
Sulphur	* 65 094	...	...	...	...
Cyprus					
Sulphur	1 581	2 518	2 420	1 442	...
Hong Kong					
Sulphur –					
Crude	1 046	253	209	264	344
Sublimed	966	1 765	2 101	1 360	779

Imports of Sulphur and Pyrites

tonnes

Country	1975	1976	1977	1978	1979
India					
Sulphur –					
Crude	616 685	588 257	767 019	816 125	...
Sublimed	430	506	327	2 078	...
Indonesia					
Sulphur –					
Crude	1 125	616	2 132	1 335	2 643
Sublimed & precipitated	12 166	18 164	28 273	45 155	29 367
Iran (c)					
Sulphur	422	744	...	...	...
Iraq					
Sulphur	41	23	...	...	...
Japan					
Pyrites	55 887	59 403	34 060	30 000	7 300
Sulphur	296	603	781	563	582
Jordan					
Sulphur –					
Crude	801	527	2 462	1 430	758
Sublimed & precipitated	212	524	289	440	644
Korea, Dem. P.R. of					
Sulphur	* 5 900	...	...	...	...
Korea, Republic of					
Sulphur –					
Crude	228 016	292 153	421 913	...	...
Sublimed & precipitated	330	298	1 160	...	...
Malaysia					
Sulphur –					
Crude	15 551	14 098	13 843	...	...
Sublimed & precipitated	654	835	740	...	...
Pakistan (b)					
Sulphur	...	7 031	3 818	8 355	5 942
Philippines					
Sulphur –					
Crude	22 326	12 173	12 301	7 587	5 466
Sublimed & precipitated	3 600	6 770	159	16 972	12 675
Singapore					
Sulphur –					
Crude	2 627	267	188	373	568
Sublimed & precipitated	474	405	362	315	168
Syria					
Sulphur –					
Crude	2 142	2 546	2 763	3 194	...
Sublimed & precipitated	563	298	1 151	338	...
Taiwan					
Sulphur –					
Crude	96 308	89 122	198 952	176 855	186 479
Sublimed & precipitated	101 845	121 124	117 780	187 499	130 629
Thailand					
Sulphur –					
Crude	25 898	2 226	27 110	31 718	...
Refined	13 037	109	4 854	11 682	...
Sublimed & precipitated	145	29	87	148	...
Australia					
Sulphur	281 757	205 766	407 675	496 804	436 221
New Zealand (b)					
Sulphur –					
Crude	251 417	196 215	229 803	234 899	257 986
Sublimed & precipitated	123	197	232	263	275

(a) S content

(b) Years ended 30 June of that stated

(c) Years ended 20 March following that stated

Talc

Production of Talc

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	19 100	14 800	14 700	18 000	16 600
France	241 000	256 000	267 000	275 000	268 000
Germany, Federal Republic of	21 092	18 282	15 971	15 446	14 986
Italy	144 082	153 836	162 437	169 000	157 382
Austria	86 512	100 649	103 743	106 848	116 420
Finland	124 260	148 531	156 584	195 200	267 200
Greece	5 869	5 543	2 723	1 078	...
Hungary	4 688	5 318	5 272	4 053	2 932
Norway	104 993	118 211	98 087	96 716	* 110 000
Portugal	1 570	1 146	1 507	1 265	2 727
Romania	* 60 000	* 60 000	* 60 000	* 60 000	* 60 000
Soviet Union	* 420 000	* 440 000	* 450 000	* 470 000	* 480 000
Spain	47 318	47 617	60 070	61 892	* 50 000
Sweden	23 846	20 441	21 214	21 322	* 22 000
Egypt	4 407	5 636	6 993	5 905	4 406
South Africa					
Talc	9 237	7 039	8 095	7 487	9 451
Wonderstone (pyrophyllite)	6 782	5 784	5 109	5 159	5 795
Zimbabwe	1 500	1 909	1 415	758	1 170
Canada	66 029	68 834	72 400	61 661	88 000
Mexico	1 480	192	163	2 639	2 700
USA					
Talc	792 000	991 039	997 000	1 150 000	1 150 000
Pyrophyllite	83 364		96 000	105 000	168 000
Argentina					
Talc	40 081	44 185	43 306	47 631	54 400
Pyrophyllite	8 357	9 132	10 947		
Steatite	328	840	454		
Brazil					
Talc (b)	139 457	141 035	180 474	190 674	255 000
Pyrophyllite (b)	58 090	72 813	73 408	69 846	
Chile	475	1 109	427	432	850
Colombia	1 000	1 200	1 380	1 320	1 300
Paraguay	* 250	140	130	160	163
Peru	13 864	14 560	15 000	12 913	15 000
Uruguay	1 268	1 170	1 659	1 945	* 2 000
Afghanistan (a)	6 300	8 700	6 800	* 2 000	* 500
China	* 150 000	* 150 000	* 150 000	* 150 000	* 150 000
India					
Steatite	217 000	220 461	247 000	298 000	330 000
Pyrophyllite	15 021	34 080	34 619	38 883	31 865
Japan					
Talc	78 931	74 384	97 782	95 834	* 1 400 000
Pyrophyllite	1 057 450	1 158 498	1 253 587	1 016 095	
Korea, Dem. P.R. of	* 130 000	* 130 000	* 130 000	* 130 000	* 130 000
Korea, Republic of					
Talc	92 907	147 774	171 925	202 078	236 824
Pyrophyllite	322 967	348 694	433 304	463 005	541 383
Pakistan	4 663	5 035	8 879	9 453	* 10 000
Philippines	1 342	1 411	1 200	4 061	* 4 500
Taiwan	12 050	15 481	10 160	9 946	11 194
Thailand	10 647	6 557	10 368	14 888	13 542
Australia					
Talc	67 242	77 447	112 920	137 553	* 140 500
Pyrophyllite	15 145	14 650	16 039	9 401	
World total	4 700 000	5 200 000	5 600 000	5 700 000	6 300 000

(a) Years ended 20 March following that stated

(b) Includes beneficiated and direct shipping ore

Exports of Talc

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 642	2 894	4 348	3 978	5 604
Belgium-Luxembourg	15 656	32 185	19 857	18 286	21 186
France	63 397	59 426	73 578	77 310	75 159
Germany, Federal Republic of	5 718	7 057	7 056	7 949	5 608
Italy	41 960	51 247	58 727	56 591	55 181
Netherlands	1 556	2 051	2 785	3 674	4 066
Austria	72 732	85 032	87 811	87 097	98 139
Finland	4 750	11 190	31 876	27 509	59 317
Greece	255	915	20	45	1 405
Norway	55 318	61 674	60 771	59 166	52 446
Portugal	21	18	63	127	18
Spain	1 938	4 775	9 608	6 128	15 030
Sweden	4 110	4 275	3 812	4 703	3 776
Switzerland	151	60	58	71	71
Turkey	179	375	12	42	615
South Africa					
Talc	116	—	614	—	69
Wonderstone (pyrophyllite)	3 367	3 834	753	6 837	6 353
Mexico	38	5	190	213	...
USA	143 058	192 740	291 928	242 047	287 034
Argentina	271	183	362	...	...
Brazil	189	247	190	159	320
China (a)	* 167 700	* 195 300	* 209 100	* 271 400	* 338 100
Hong Kong (Re-exports)	226	2 422	4 843	5 729	8 908
India	7 158	8 783	18 000	12 459	...
Japan	454	1 499	1 721	1 803	1 145
Korea, Dem. P.R. of	* 119 300	...	...	...	...
Korea, Republic of	42 212	68 244	82 110	77 878	...
Malaysia	283	473	160	...	...
Singapore	807	1 156	1 658	735	807
Syria	5	18	1	...	...
Taiwan	457	982	2 348	1 312	1 401
Australia	45 457	62 306	87 271	106 177	107 849

(a) IGS estimates, based on known imports into certain countries

Talc

Imports of Talc

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	98 282	61 281	60 552	62 576	65 757
Belgium-Luxembourg	23 412	39 026	35 579	22 758	36 915
Denmark	9 366	11 525	10 842	10 578	...
France	6 909	8 392	12 147	19 258	18 028
Germany, Federal Republic of	87 517	111 223	113 164	127 515	125 688
Irish Republic	2 021	2 444	1 950	1 988	2 016
Italy	14 667	18 546	18 176	18 892	21 791
Netherlands	13 999	17 183	17 473	21 192	23 404
Austria	1 141	1 901	2 860	2 427	2 746
Finland	822	715	656	656	868
Greece	2 903	1 633	1 666	1 914	2 564
Norway	3 890	3 047	4 597	3 419	6 654
Poland	24 728	19 960	24 081	25 540	...
Portugal	2 685	3 485	3 459	4 145	3 238
Soviet Union	90 950	* 100 000	* 100 000	* 120 000	* 120 000
Spain	8 708	12 282	15 729	11 948	10 945
Sweden	22 306	22 872	18 857	18 780	45 745
Switzerland	9 216	9 379	11 042	10 766	10 911
Turkey	410	506	877	189	235
Yugoslavia	2 488	2 461	3 261	5 127	4 611
Algeria	3 425	2 829	5 169	1 835	...
Cameroon	163	184	261	346	...
Ghana	489	...	...	...	...
Ivory Coast	717	748	1 558	1 030	915
Kenya	...	...	4 123	3 572	2 556
Morocco	1 070	1 270	1 048	936	797
Mozambique	162	140	217	...	...
Senegal	161	...	334	...	...
South Africa	1 654	2 132	1 962	1 744	1 798
Togo	59	...	...	...	...
Tunisia	2 597	1 591	3 563	1 580	...
Zaire	231	218	120	174	...
Canada	30 428	46 397	33 769	33 349	50 322
Costa Rica	439	591	925	...	...
El Salvador	140	127	292	...	...
Guatemala	282	325	490	...	...
Honduras	23	71	148	152	...
Mexico					
Talc	89 113	110 027	118 130	129 131	...
Pyrophyllite	234	281	50	80	...
Nicaragua	179	378	...	...	160
Panama	313	273	396	...	...
USA	21 208	18 208	20 040	17 526	20 297
Argentina	489	327	253	...	...
Brazil	79	174	122	131	111
Venezuela	6 492	8 227	9 166	9 236	...
Cyprus	213	297	606	281	...
Hong Kong	1 353	4 037	7 207	7 684	10 793
Indonesia	5 138	7 744	12 834	11 159	10 533
Iran (a)	192	327	...	...	...
Iraq	16	407	...	...	...
Israel (c)	42	519	80	120	...
Japan	236 196	301 945	360 612	447 718	550 265
Malaysia	3 182	4 798	6 027	...	...

Talc

tonnes

Imports of Talc

Country	1975	1976	1977	1978	1979
Philippines	3 546	5 306	4 722	8 547	4 347
Singapore	5 711	8 025	8 746	6 054	4 885
Syria	1 617	490	5 112	3 892	...
Taiwan	1 646	1 868	3 758	3 943	5 297
Thailand	3 619	7 366	10 776	10 996	...
Australia	947	371	335	527	420
New Zealand (b)	2 409	2 481	3 963	3 623	3 181

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Tantalum and Niobium (Columbium) Minerals

tonnes

Country		1975	1976	1977	1978	1979
Portugal						
Columbite-tantalite	(25%, 25%)	9	3	2	8	4
Mozambique						
Tantalite	(14%, 42%)	46	30	39	39	* 34
Microlite	(4%, 55%)	44	56	40	40	* 32
Nigeria						
Columbite	(43%, 6%)	991	670	860	567	563
Tantalite	(30%, 30%)	1	4	1	1	0
Rwanda						
Columbite-tantalite	(30%, 23%)	47	45	94	54	* 50
Uganda						
Columbite-tantalite	(25%, 20%)	* 2	* 2	* 2	* 2	* 2
Zaire						
Columbite-tantalite	(27%, 27%)	90	79	113	47	38
Zimbabwe						
Columbite-tantalite	(11%, 28%)	23	19	30	31	30
Canada						
Pyrochlore	(43%, —)	3 166	2 498	4 182	4 054	3 881
Tantalite	(3%, 44%)	332	261	261	280	293
Brazil						
Pyrochlore	(42%, —)	14 605	19 003	15 613	17 900	* 20 000
Columbite-tantalite	(20%, 30%)	100	198	137	203	* 200
Djalmaite	(1%, 50%)	35	24	19	19	* 20
Malaysia						
Columbite	(40%, 14%)	50	46	45	23	40
Thailand						
Columbite	(27%, 16%)	7	40	33	64	* 33
Tantalite	(20%, 30%)	103	7	41	—	* 40
Australia						
Columbite-tantalite	(20%, 33%)	150	118	157	139	* 160
World total concentrates		20 000	23 000	22 000	23 000	25 000
Nb content		* 8 000	* 9 000	* 9 000	* 10 000	* 10 000
Ta content		* 400	* 400	* 400	* 400	* 400

Notes:

1. Niobium and tantalum minerals are believed to have been produced also in the Soviet Union and China, and minor quantities in Argentina, Burundi, Namibia, Spain and Zambia
2. The figures in this table refer to gross tonnage of tantalum and niobium concentrates. Estimated average niobium and tantalum contents of these are given in the form (Nb%, Ta%) for each country and each mineral, relating where possible to the later years
3. Niobium and tantalum are also recovered from tin slags. This source is particularly important in the case of tantalum and is believed to account for well over 50% of all tantalum currently recovered. No detailed information on the tantalum recoverable from tin slags is available but it is estimated that Thailand and Malaysia together produce over 400 tonnes of tantalum in tin slags per year, and that Australia, Brazil, Nigeria, Portugal, South Africa, Spain and Zaire collectively produce a further 150 tonnes annually

Exports of Tantalum and Niobium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Niobium & tantalum ores & concentrates	384	(b) 117	(b) 44	(b) 86	(b) 144
Tantalum	62	5	24	36	43
France					
Niobium & tantalum ores (b)	—	356	10	—	12
Tantalum	7	19	19	12	22
Germany, Federal Republic of					
Niobium & tantalum ores (b)	776	921	940	1 041	1 276
Tantalum	29	61	61	48	81
Niobium	16	22	11	19	41
Italy					
Tantalum	6	4	1	10	5
Niobium	3	1	1	6	...
Netherlands					
Tantalum	1	6	7	7	8
Austria					
Tantalum	7	28	10	10	15
Portugal					
Columbite	11	4	3	4	...
Mozambique					
Columbite & tantalite	140	92	45	...	...
Nigeria					
Columbite	977	1 036	...	...	...
Zaire					
Columbite-tantalite (a)	* 50	* 40	* 60	* 100	...
Canada					
Pyrochlore	* 2 500	* 2 100	* 3 700	* 3 600	* 3 500
Tantalite	* 250	* 210	* 300	* 300	* 300
USA					
Tantalum ores & concentrates	27	27	67	29	149
Tantalum	287	266	320	411	334
Niobium	24	30	35	* 40	* 45
Brazil					
Pyrochlore	2 895	4 381	3 310	...	...
Columbite-tantalite	125	130	169	129	319
Japan					
Tantalum	9	15	45	42	30
Malaysia					
Columbite & tantalite	82	116	263	...	...
Tin slags	12 398	19 402	5 792	...	...
Thailand					
Columbite & tantalite	30	103	230	112	...
Tin slags	1 733	1 890	2 575	2 736	...
Australia					
Tantalite-columbite	132	124	158	125	312

(a) IGS estimates, based on part figures given in trade account

(b) Includes vanadium ores

Imports of Tantalum and Niobium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Niobium & tantalum ores & concentrates	1 666	(a) 1 349	(a) 610	(a) 466	(a) 621
Tantalum	29	57	115	105	75
Niobium	3	2	4	7	36
Belgium-Luxembourg					
Niobium & tantalum ores (a)	246	944	1 984	1 952	2 245
Niobium	23	17	4	10	10
France					
Niobium & tantalum ores (a)	1 241	196	11	25	0
Tantalum	21	24	18	30	52
Niobium	3	1	...	11	5
Germany, Federal Republic of					
Niobium & tantalum ores (a)	2 097	1 651	1 557	870	1 458
Tantalum	137	125	219	251	252
Niobium	5	3	4	11	22
Italy					
Niobium & tantalum ores	235	5	—	(a) 1 818	(a) 449
Tantalum	14	4	9	8	8
Niobium	10	10	6	1	19
Netherlands					
Tantalum	3	1	2	3	1
Austria					
Tantalum	9	12	19	15	43
USA					
Tantalum concentrates (b)	286	375	298	270	286
Niobium concentrates (c)	383	998	704	899	767
Tantalum	30	24	57	62	65
Niobium	1	0	1	0	* 2
Tin slags –					
Ta content	107	195	578	307	517
Nb content	65	134	399	198	514
Japan					
Niobium minerals	2 350	1 813	1 751	1 858	1 659
Tantalum ores & concentrates	62	62	170	128	304
Tantalum	21	54	53	54	77
Malaysia					
Tantalum	20	5	13	...	...

(a) Includes vanadium ores

(b) Ta content

(c) Nb content

Mine Production of Tin

tonnes (metal content)

Country	1975	1976	1977	1978	1979
United Kingdom	4 091	4 015	4 189	3 132	2 708
Czechoslovakia	* 176	* 180	* 180	* 180	* 180
German Democratic Republic	* 1 100	* 1 300	* 1 400	* 1 500	* 1 600
Portugal	375	332	267	282	225
Soviet Union	* 30 000	* 31 000	* 32 000	* 33 000	* 34 000
Spain	737	720	642	711	700
Cameroon	26	19	10	25	* 20
Namibia	760	735	* 1 000	* 1 000	* 1 000
Niger	89	84	* 96	* 96	* 96
Nigeria	4 652	3 710	3 267	2 935	2 750
Rwanda	* 1 250	* 1 440	* 1 450	* 1 400	* 1 400
South Africa	2 771	3 257	2 876	2 876	2 697
Uganda	88	* 120	* 120	* 120	* 120
Zaire	4 574	3 950	3 900	* 3 450	3 300
Zimbabwe	997	914	920	945	969
Canada (a)	319	274	328	360	362
Mexico	378	481	220	73	* 200
USA	* 100	* 100	* 100	* 100	* 100
Argentina	538	358	537	* 400	* 400
Bolivia	30 251	30 355	32 616	30 881	27 648
Brazil	4 560	5 388	6 400	6 552	7 400
Peru (b)	255	273	330	760	840
Burma	* 750	* 400	* 400	* 700	* 800
China	* 22 000	* 20 000	* 18 000	* 16 000	* 17 000
Indonesia	25 337	24 456	25 926	27 437	29 440
Japan	644	766	595	599	658
Korea, Republic of	* 24	* 24	* 24	56	40
Laos	518	576	* 600	* 600	* 600
Malaysia	64 364	63 401	58 703	62 650	62 995
Thailand	16 406	20 452	24 205	30 186	33 900
Australia	9 577	10 611	10 634	11 547	11 395
World total	228 000	230 000	232 000	241 000	246 000

(a) Sn in concentrates exported and in tin-lead alloys produced

(b) Recoverable

Tin

Smelter Production of Tin

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	11 585	11 161	10 458	8 445	8 025
Belgium	4 562	4 068	5 008	5 195	4 743
Germany, Federal Republic of	1 306	1 449	2 897	3 241	2 488
Netherlands (a)	1 800	2 000	2 100	1 625	1 720
Czechoslovakia	107	^d 120	120	120	120
German Democratic Republic	* 1 300	* 1 400	* 1 400	* 1 500	* 1 600
Portugal	409	319	588	490	397
Soviet Union	* 30 000	* 31 000	* 32 000	* 33 000	* 34 000
Spain	5 249	4 359	5 307	4 575	4 412
Nigeria	4 677	3 667	3 315	2 984	2 858
South Africa	780	683	582	637	* 700
Zaire	647	718	765	496	482
Zimbabwe	* 600	800	880	912	949
Mexico	1 000	800	1 000	1 000	600
USA	6 500	5 700	6 700	5 900	4 600
Argentina	* 120	* 120	* 120	* 120	* 120
Bolivia (a)	7 775	9 868	13 048	16 181	16 951
Brazil	* 5 400	6 423	7 421	9 309	10 135
China	* 22 000	* 20 000	* 19 000	* 20 000	* 17 000
Indonesia	17 826	23 322	24 005	25 830	27 790
Japan	1 219	1 145	1 271	1 140	1 252
Malaysia	83 070	78 017	66 305	71 953	73 068
Thailand	16 630	20 337	23 102	28 945	33 058
Australia	5 254	5 603	5 561	5 129	5 423
World total	230 000	233 000	233 000	249 000	252 000

(a) Refined, including alloys

Exports of Tin

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	2 819	185	180	3 608	4 019
Unwrought	6 443	6 867	6 800	6 971	6 243
Unwrought alloys	3 140	3 293	1 917	1 529	1 214
Scrap	68	114	212	49	22
Belgium-Luxembourg					
Unwrought	1 831	3 231	2 454	2 343	2 301
Unwrought alloys	76	102	161	74	72
Scrap	110	51	98	149	92
Denmark					
Unwrought	27	43	30	37	28
Unwrought alloys	1 123	609	835	620	...
Scrap	12	92	161	161	...
France					
Ore	81	54	18	10	7
Unwrought	251	80	259	739	564
Unwrought alloys	230	185	164	129	102
Scrap	228	538	753	717	881
Germany, Federal Republic of					
Unwrought	1 311	1 505	3 577	4 353	5 264
Unwrought alloys	406	698	785	460	520
Scrap	207	211	120	88	52
Italy					
Unwrought	462	138	242	228	125
Scrap	95	9	92	24	131
Netherlands					
Unwrought	1 135	1 439	852	437	525
Unwrought alloys			906	837	750
Scrap	434	742	698	549	513
Austria					
Unwrought	42	53	2	38	10
Norway					
Unwrought (a)	42	65	99	59	21
Portugal					
Unwrought	10	0	7	3	3
Spain					
Unwrought	1 453	2 253	1 624	153	435
Unwrought alloys	120	236	278	178	132
Scrap	33	124	121	37	94
Sweden					
Unwrought	72	56	209	40	61
Unwrought alloys	11	7	29	14	2
Switzerland					
Unwrought	52	65	91	84	168
Scrap	70	62	79	68	90
Yugoslavia					
Unwrought (a)	50	51	134	64	114
Niger					
Ore	127	(b) 63	...	...	...
Nigeria					
Unwrought (a)	4 729	3 419	3 039	3 079	2 581
Rwanda					
Concentrates (b)	1 326	1 370	1 607	1 398	1 084
South Africa					
Concentrates (b)	2 273	1 768	2 386	2 212	1 544
Tanzania					
Ores & concentrates	40	22	18	24	...
Uganda					
Ores & concentrates	85	20	...	...	...
Zaire					
Ore (b)	4 275	3 130	3 179	2 766	1 647
Unwrought	755	329	160	776	543
Canada					
Concentrates (b)	1 052	796	876	943	713

Tin

Exports of Tin

tonnes

Country	1975	1976	1977	1978	1979
USA					
Unwrought (a)	3 596	2 338	5 487	4 693	3 418
of which: Re-exports	2 152	1 798	4 941	4 194	2 849
Scrap	4 569	6 559	4 512	6 349	6 068
Argentina					
Tin-silver ore	1 918	—	—	...	...
Bolivia					
Concentrates (b)	18 944	20 487	18 413	13 818	11 304
Unwrought	7 497	9 868	12 047	14 198	14 222
Brazil					
Unwrought	3 491	1 845	2 112	1 665	1 508
Peru					
Ores & concentrates	703	759	754	...	...
Burma					
Ores & concentrates (b)	886	1 740	1 213	1 141	2 104
China					
Unwrought	* 13 000	* 7 000	* 3 400	* 5 200	* 2 000
Hong Kong					
Unwrought (Re-exports)	248	65	135	223	15
Indonesia					
Ores & concentrates	10 056	1 526	1 968	976	1 624
Unwrought (a)	5 772	2 875	21 314	22 859	26 274
Scrap	2 965	14 517	2 695	676	475
Japan					
Unwrought (a)	220	56	205	66	84
Laos					
Ore (b)	426	438	264	72	42
Malaysia					
Unwrought	77 947	81 527	66 517	70 110	72 123
Singapore					
Ore	2 343	5 498	10 440	8 271	6 382
Unwrought	108	1 372	2 702	7 096	9 835
Unwrought alloys	459	735	742	751	781
Thailand					
Unwrought	16 661	20 048	21 439	28 944	32 460
Unwrought alloys	629	1 126	2 276	1 307	...
Australia					
Ores & concentrates (b)	4 521	3 363	5 126	7 015	* 6 600
Unwrought (a)	2 470	2 315	2 320	2 146	1 746

Note: In this table the description 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 2) and comprises ingots, pigs, unwrought bars, sticks, etc

(a) Including alloys

(b) Sn content

Imports of Tin

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	42 908	41 712	45 104	39 105	35 987
Unwrought	5 293	6 692	8 360	7 834	7 747
Unwrought alloys	873	1 043	983	518	783
Scrap	1 259	1 219	1 477	1 355	1 314
Belgium-Luxembourg					
Ore	7 210	5 173	5 299	4 718	2 912
Unwrought	1 601	2 298	2 044	2 105	2 606
Unwrought alloys	155	209	108	128	188
Scrap	113	214	134	131	175
Denmark					
Unwrought	245	323	371	226	252
Unwrought alloys	57	98	104	122	...
Scrap	149	239	151	201	...
France					
Ore	—	5	—	504	941
Unwrought	9 968	10 602	10 079	10 650	10 348
Unwrought alloys	174	230	430	178	217
Scrap	310	188	268	136	99
Germany, Federal Republic of					
Ore	9 883	9 550	6 282	7 989	7 158
Unwrought	12 998	15 453	14 914	14 700	15 773
Unwrought alloys	959	837	705	781	1 325
Scrap	449	394	534	624	340
Irish Republic					
Unwrought (a)	15	27	21	50	25
Italy					
Unwrought	5 418	7 445	6 221	5 899	6 727
Unwrought alloys	664	463	481	527	380
Netherlands					
Ore	3 083	2 882	3 938	2 820	3 437
Unwrought	4 362	5 764	4 090	4 616	4 728
Unwrought alloys			1 209	814	811
Scrap	540	771	925	971	470
Austria					
Unwrought	418	555	479	469	497
Czechoslovakia					
Unwrought	3 986	3 859	3 196	3 894	...
Finland					
Unwrought (a)	172	183	121	211	302
Greece					
Unwrought	576	325	401	320	799
Hungary					
Unwrought & semi-manufactures	1 786	1 718	1 520	1 739	1 724
Norway					
Unwrought	651	596	524	547	500
Unwrought alloys	136	200	98	97	83
Poland					
Unwrought	4 510	5 096	4 680	4 616	3 879
Portugal					
Ore	—	100	419	332	212
Unwrought	307	471	479	464	408
Soviet Union					
Ores & concentrates	468	* 2 000	* 2 000	* 2 000	* 2 000
Unwrought	9 654	* 8 000	* 6 000	* 7 000	* 7 000
Spain					
Ore	7 466	7 486	6 125	5 083	3 263
Sweden					
Unwrought	702	667	247	336	530
Unwrought alloys	104	165	90	79	98
Switzerland					
Unwrought	727	769	705	932	868
Turkey					
Unwrought	1 168	894	996	744	321

Tin

Imports of Tin

tonnes

Country	1975	1976	1977	1978	1979
Yugoslavia					
Unwrought (a)	1 037	1 366	1 960	1 833	1 604
Algeria					
Unwrought (a)	116	76	53	94	...
Egypt					
Unwrought & scrap	353	854	215	361	241
Kenya					
Unwrought (a)	21	28	44	22	17
Morocco					
Unwrought (a)	230	195	154	148	167
Nigeria					
Unwrought (a)	63	978	...	...	...
South Africa					
Unwrought	835	835	845	450	287
Tanzania					
Unwrought (a)	12	14	...	5	...
Tunisia					
Unwrought & scrap	74	55	40	51	...
Zambia					
Unwrought	37	53	14	...	...
Canada					
Unwrought	4 487	4 224	5 028	4 804	4 689
Mexico					
Ores & concentrates	2 995	2 162	2 689	3 568	...
Unwrought	100	—	152	257	...
USA					
Ore (b)	6 415	5 733	6 724	3 873	4 529
Unwrought	44 365	45 055	48 350	46 776	48 355
Unwrought alloys	887	693	702	770	990
Scrap	2 150	2 390	712	498	628
Argentina					
Unwrought	1 777	984	631	...	...
Brazil					
Ore	3 137	1 493	3 911	4 074	7 542
Colombia					
Unwrought (a)	...	321	364	...	...
Uruguay					
Unwrought	...	34	61	38	69
Venezuela					
Unwrought (a)	604	293	519	339	...
Hong Kong					
Unwrought	610	988	896	1 445	2 042
India					
Unwrought (a)	2 319	3 114	2 509	1 882	...
Iran (d)					
Unwrought	357	602	...	...	...
Iraq					
Unwrought (a)	51	59	...	...	...
Israel (c)					
Unwrought	7	1	6	16	...
Japan					
Ores & concentrates	—	92	—	—	—
Unwrought	21 968	31 120	28 200	28 563	30 478
Korea, Republic of					
Ores & concentrates	10	295	519	...	...
Unwrought (a)	821	1 093	4 271	...	...
Malaysia					
Ore	27 772	12 349	11 495	...	...
Unwrought (a)	139	126	35	...	...
Philippines					
Unwrought (a)	267	277	704	767	422
Singapore					
Ore	37	982	3 177	3 118	4 227
Unwrought	838	544	338	1 174	1 015
Unwrought alloys	281	309	450	498	537

Imports of Tin

Country	1975	1976	1977	1978	1979
Syria					
Unwrought & scrap	94	115	93	242	...
Taiwan					
Unwrought	915	814	1 777	3 199	703
Australia					
Unwrought	28	32	222	204	5
New Zealand (e)					
Unwrought (a)	300	290	341	249	236

Note: In this table the description 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 2) and comprises ingots, pigs, unwrought bars, sticks, etc

(a) Including alloys

(b) Sn content

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

Titanium

Production of Titanium Minerals

tonnes

Country	1975	1976	1977	1978	1979
Finland					
Ilmenite	122 600	122 600	124 700	131 900	* 131 500
Norway					
Ilmenite	526 666	766 664	828 503	766 990	819 711
Portugal					
Ilmenite	212	367	229	251	268
Soviet Union					
Ilmenite	* 327 000	* 380 000	* 500 000	* 410 000	* 410 000
Rutile	...	* 9 000	* 9 000	* 9 000	* 9 000
South Africa					
Titanium concentrates	...	...	...	...	753 325
Canada (a)					
Slag (d)	749 850	814 040	692 341	850 030	477 034
USA					
Ilmenite (b)	650 706	591 851	579 240	535 013	579 956
Brazil					
Ilmenite	4 596	14 615	13 268	20 077	18 000
Rutile	104	51	128	365	360
India					
Ilmenite	* 82 000	* 90 000	* 140 000	* 150 000	* 150 000
Rutile	* 3 600	* 4 000	* 6 000	* 5 000	* 9 000
Malaysia (c)					
Ilmenite	112 248	180 004	153 679	* 186 816	* 186 896
Sri Lanka					
Ilmenite	64 010	64 654	33 946	35 904	55 370
Rutile	3 111	1 019	950	11 497	14 675
Australia					
Ilmenite	991 433	959 203	1 033 358	1 254 994	1 181 010
Rutile	348 350	389 750	325 281	257 075	274 533
Leucoxene	16 871	12 223	10 621	16 104	22 470
World total					
Ilmenite (Wt. of concs)	2 881 000	3 170 000	3 407 000	3 492 000	4 246 000
Rutile (Wt. of concs)	355 000	404 000	341 000	283 000	348 000
All forms (TiO ₂ content)	* 2 318 000	* 2 549 000	* 2 522 000	* 2 624 000	2 808 000

Note: The figures in this table refer to gross tonnage of titanium concentrates

(a) Canada produces some ilmenite which is sold as such and not processed into slag, but tonnages are small

(b) Includes a mixed product containing ilmenite, leucoxene and rutile

(c) Exports

(d) Gross weight of 70–72% TiO₂ slag produced

Titanium

tonnes

Exports of Titanium

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	15 177	386	234	3 081	1 551
Belgium-Luxembourg					
Metal	11	54	109	164	191
France					
Titanium minerals	515	425	370	331	715
Metal	674	532	636	530	604
Germany, Federal Republic of					
Ilmenite	24	187	27	639	1 535
Other titanium minerals	922	1 881	2 334	5 556	4 067
Metal	1 579	1 411	1 643	1 905	1 864
Italy					
Metal	48	59	119	137	125
Netherlands (c)					
Ilmenite	1 664	1 985	886	563	2 457
Other titanium minerals	9 432	12 413	9 574	377	142
Norway					
Titanium minerals	534 606	728 346	723 543	714 108	741 430
Sweden					
Titanium minerals	—	—	—	—	388
Metal	200	578	412	520	420
Canada					
Titanium dioxide slag (a)	...	...	...	...	...
USA					
Ores & concentrates	3 521	4 576	23 108	5 070	9 780
Metal	5 711	6 569	4 080	7 086	7 903
India					
Ilmenite	68 975	120 727	76 699	96 728	...
Japan					
Metal	3 274	2 555	3 444	5 741	7 113
Malaysia					
Ilmenite	112 248	180 004	153 679	...	...
Other titanium minerals	—	—	16 004	...	...
Sri Lanka					
Ilmenite	...	70 615	39 841	40 699	...
Australia					
Rutile	319 006	346 862	246 724	371 268	317 780
Ilmenite (b)	545 031	964 686	1 095 232	1 000 152	931 705

(a) Sorelslag (70–72% TiO₂): estimated at 700 000 tonnes per year

(b) Including leucoxene

(c) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

Titanium

Imports of Titanium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom (a)					
Ilmenite	225 264	297 087	298 983	261 405	302 444
Other titanium minerals	33 379	84 232	89 055	45 302	80 546
Metal	3 487	5 866	3 952	7 981	...
Belgium-Luxembourg					
Ilmenite	205	36	2 041	63 641	75 517
Other titanium minerals	31 350	101 941	67 244	36 979	26 577
Metal	1 598	1 659	607	1 463	4 097
France					
Ilmenite	108 280	185 073	135 944	146 577	119 708
Other titanium minerals	9 134	8 929	8 183	7 900	9 700
Metal	1 518	1 660	1 025	965	1 786
Germany, Federal Republic of					
Ilmenite	246 434	384 357	478 333	406 992	521 534
Other titanium minerals	83 757	88 376	121 029	112 570	52 471
Metal	4 431	3 298	2 284	3 871	3 836
Italy					
Ilmenite	99 270	176 382	133 985	121 897	76 629
Other titanium minerals	3 659	3 372	7 486	4 531	5 538
Metal	2 195	1 609	1 921	2 770	2 856
Netherlands (b)					
Ilmenite	2 513	5 807	2 021	412	2 885
Other titanium minerals	25 550	5 213	5 971	934	1 372
Finland					
Titanium minerals	15 282	3 315	10 368	6 399	5 535
Portugal					
Rutile	180	239	523	476	...
Spain					
Ilmenite	54 851	101 302	133 272	106 200	162 977
Sweden					
Titanium minerals	4 234	3 075	2 718	1 448	2 393
Metal	1 554	1 396	737	1 169	1 025
Turkey					
Titanium minerals	2 132	2 350	3 226	700	...
Yugoslavia					
Rutile	51 969	45 093	47 305	45 980	23 742
Algeria					
Titanium minerals	322	462	277	288	...
Canada					
Metal	405	439	372	631	725
USA					
Ilmenite	110 686	152 772	303 898	280 022	167 356
Titanium slag	192 942	155 695	136 589	135 327	100 888
Rutile (c)	203 662	255 565	112 309	262 736	257 168
Metal	5 060	3 584	6 788	5 975	8 930
Titaniferous iron ore	41 759	83 182	75 072	46 847	139 447
Argentina					
Titanium minerals	1 568	1 809	2 053	...	...
Brazil					
Ilmenite	15 233	41 250	69 632	56 335	56 437
Rutile	3 216	4 800	2 066	4 070	2 942
Japan					
Titanium minerals	444 056	496 750	495 967	399 131	420 433
Korea, Republic of					
Titanium minerals	5 222	15 861	22 292	...	...
Rutile sand	1 675	2 343	3 220	...	...

Imports of Titanium

Country	1975	1976	1977	1978	1979
Philippines					
Rutile	573	539	252	726	493
Singapore					
Titanium minerals	196	397	491	655	1 177
Thailand					
Rutile	...	—	441	618	...

Note: Significant quantities of titanium Sorelslag are believed to be imported into various Western European countries, but details are not available

(a) United Kingdom is known to import about 70 000 tonnes per annum of Sorelslag (70–72% TiO₂)

(b) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(c) Includes synthetic rutile

Mine Production of Tungsten

tonnes (WO est.)

Country	1975	1976	1977	1978	1979
United Kingdom	13	13	96	82	83
France	780	798	824	767	630
Netherlands (e)	815	* 740	...	...	...
Austria	415	1 813	1 772	1 954	2 104
Czechoslovakia	* 100	* 100	* 100	* 100	* 100
Portugal (c)	1 796	1 588	1 267	1 392	* 1 730
Soviet Union	* 9 800	* 10 100	* 10 300	* 10 700	* 10 900
Spain	442	414	387	451	* 400
Sweden	180	245	251	480	* 500
Turkey	* 13	1 170	629	9	81
Namibia (d)	* 115	* 100	* 110	117	57
Rwanda	387	484	492	427	* 485
Uganda	* 137	* 139	* 139	* 139	* 137
Zaire (d)	322	303	216	* 250	* 190
Zimbabwe	48	32	* 32	* 32	* 28
Canada (a)	1 478	2 168	2 284	2 886	3 274
Mexico	349	296	241	295	* 250
USA (b)	3 140	3 357	3 444	3 947	3 800
Argentina	73	78	88	100	97
Bolivia	3 168	3 278	3 706	3 997	3 926
Brazil (a)	1 151	1 180	1 418	1 236	1 484
Peru	788	650	666	734	630
Burma (d)	415	590	562	* 590	* 900
China	* 11 300	* 11 350	* 11 350	* 12 600	* 14 500
Hong Kong	* 6	* 6	* 6	* 6	* 6
India	24	29	28	26	25
Japan	1 023	1 049	978	951	947
Korea, Dem. P.R. of	* 2 710	* 2 710	* 2 710	* 2 710	* 2 710
Korea, Republic of	3 082	3 262	3 322	3 381	3 421
Malaysia	134	81	125	* 100	* 90
Thailand	2 237	2 591	2 779	4 018	2 305
Australia (c)	1 888	2 508	2 973	3 380	3 950
New Zealand	—	9	7	10	10
World total	48 000	53 000	54 000	59 000	60 000

(a) Mainly scheelite

(b) Shipments from mine

(c) Wolframite and scheelite

(d) Including tin-wolframite concentrates

(e) Estimated production from separation complex ores, excluded from world totals

Exports of Tungsten

Country	1975	1976	1977	1978	1979
United Kingdom					
Tungsten ore	189	206	366	135	30
Metal	694	337	455	336	227
Belgium-Luxembourg					
Tungsten ore	84	36	49	45	9
Metal	123	116	230	217	159
France					
Tungsten ore	1 399	1 322	1 125	1 613	1 082
Metal	263	372	338	297	363
Germany, Federal Republic of					
Tungsten ore	494	30	172	87	174
Metal	588	585	573	541	606
Italy					
Metal	25	96	102	34	99
Netherlands					
Tungsten ore (b)	1 254	1 239	864	1 260	1 161
Metal	192	130	220	243	202
Austria					
Tungsten ore	30	450	252	130	25
Metal	150	183	363	581	848
Portugal					
Tungsten ore	1 940	1 875	1 555	1 692	1 768
Spain					
Scheelite ore	365	274	191	174	256
Other tungsten ore	208	193	276	213	359
Sweden					
Tungsten ore	—	135	86	103	431
Metal	43	110	28	49	54
Switzerland					
Metal	19	132	64	23	24
Rwanda					
Tungsten ore & concentrates (a)	379	384	* 400	...	...
South Africa					
Tungsten ore (a)	* 260	* 285	* 180	* 265	...
Uganda					
Wolframite ore	229	136	* 200	...	...
Zaire					
Tungsten ore	206	152	171	255	...
Canada (a)	* 1 200	* 1 430	* 1 690	* 1 930	...
Mexico					
Tungsten ore & concentrates	731	381	408	438	...
USA					
Tungsten ore & concentrates	1 158	1 520	1 128	1 616	1 683
Metal	927	1 049	973	1 191	1 130
Bolivia					
Tungsten ore (a)	2 551	3 275	2 820	2 852	2 647
Brazil					
Tungsten ore	1 411	1 044	1 353	992	538
Peru					
Tungsten ore & concentrates (a)	738	637	564	* 600	...
Burma					
Tungsten ore & concentrates	338	...	...	...	...
Tin-tungsten ores	306	...	...	...	...
China					
Tungsten ore & concentrates (a)	* 4 000	* 3 000	* 3 000	9 393	* 10 000
Japan					
Metal	200	184	130	172	209

Tungsten

Exports of Tungsten

tonnes

Country	1975	1976	1977	1978	1979
Korea, Dem. P.R. of (a)	* 1 100	* 1 000	* 1 000	* 1 000	...
Korea, Republic of					
Tungsten ore	3 278	2 366	2 029	2 361	...
Malaysia					
Wolframite ore	228	134	147	...	...
Singapore					
Tungsten ore	13	562	137	440	396
Metal	246	65	44	57	42
Thailand					
Tungsten ore	3 382	4 061	4 094	5 799	...
Australia					
Wolframite ores & concentrates	575	467	714	827	1 690
Scheelite ores & concentrates	2 201	2 688	2 873	3 936	3 442

(a) W content

(b) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

Imports of Tungsten

Country	1975	1976	1977	1978	1979
United Kingdom					
Tungsten ore	3 355	3 829	3 365	3 655	2 996
Metal	224	153	208	567	245
Belgium-Luxembourg					
Tungsten ore	170	418	98	—	—
Metal	157	165	237	199	300
France					
Tungsten ore	2 188	2 386	2 034	2 468	1 586
Metal	94	186	173	251	307
Germany, Federal Republic of					
Tungsten ore	3 365	4 362	2 981	3 422	4 097
Metal	591	603	924	1 150	831
Italy					
Tungsten ore	240	137	25	126	181
Metal	63	91	99	124	144
Netherlands					
Tungsten ore (a)	1 880	3 218	1 341	1 699	99
Metal	143	161	220	205	123
Austria					
Tungsten ore	1 717	2 722	2 205	4 533	4 835
Metal	195	196	744	492	728
Finland					
Metal	19	27	31	29	20
Poland					
Tungsten concentrates	3 318	3 762	3 360	4 103	...
Soviet Union					
Tungsten concentrates	8 120	* 2 000	* 2 000	* 3 000	* 3 000
Sweden					
Tungsten ore	3 679	3 201	2 665	2 420	2 180
Metal	103	117	102	43	28
Switzerland					
Metal	63	24	73	92	39
Yugoslavia					
Metal	9	11	18	23	24
South Africa					
Tungsten ore & concentrates	422	341	483	508	335
Metal	33	13	32	142	202
USA					
Tungsten ore	6 334	5 604	7 101	9 574	11 454
Metal	137	280	255	345	769
India					
Tungsten ore	216	517	428	347	...
Metal	59	18	5	21	...
Japan					
Tungsten ore	2 027	2 605	3 247	2 264	3 133
Metal	22	106	113	126	162
Singapore					
Tungsten ore	11	163	68	417	487
Metal	52	44	42	54	3
Taiwan					
Metal	8	13	13	23	39
Australia (b)					
Metal	12	4	5	6	...

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Years ended 30 June of that stated

Vanadium

Mine Production of Vanadium

tonnes (metal content)

Country	1975	1976	1977	1978	1979
Finland	1 275	1 496	1 964	2 954	2 915
Norway	* 460	* 530	* 540	* 460	* 450
Soviet Union	* 8 000	* 9 000	* 9 000	* 9 000	* 9 000
Namibia (a)	562	709	749	440	...
South Africa (c)	* 10 645	9 872	11 243	* 11 250	* 12 300
USA (d)	4 303	6 691	5 900	3 875	5 008
Chile (b)	* 600	* 1 100	* 860	* 690	* 450
World total	26 000	29 400	30 300	28 700	30 600

Note: Vanadium pentoxide is also known to have been produced in France as a byproduct of alumina manufacture; the vanadium content of this was reported as 78 tonnes in 1970 but subsequent figures are not available

- (a) Years ended 30 June of that stated
- (b) Estimated V content of slag exported only
- (c) Includes V content of slag
- (d) Recoverable vanadium

Exports of Vanadium

Country	1975	1976	1977	1978	1979
United Kingdom					
Pentoxide	99	76	144	158	56
Metal	146	1	2	0	0
Belgium-Luxembourg					
Vanadiferous residues	861	713	294	260	1 423
Pentoxide	142	14	167	105	212
France					
Vanadiferous residues	333	23	—	422	1 563
Pentoxide	23	20	75	2	6
Germany, Federal Republic of					
Vanadiferous residues	1 240	1 280	860	1 137	904
Metal	30	0	1	55	109
Netherlands					
Vanadiferous residues (c)	3 082	23	80	107	199
Vanadium-titanium pig-iron (c)	—	—	2	95	3
Finland					
Pentoxide	2 407	2 571	3 500	4 931	4 928
Soviet Union					
Vanadiferous residues	20 598	12 913	* 12 000	* 12 000	* 12 000
South Africa					
Pentoxide (a)	* 6 200	* 5 400	* 4 600	* 6 100	* 7 900
Vanadiferous residues (d)	* 10 000	* 11 000	...	...	...
Lead vanadium concentrates (b)	5 771	7 240	* 7 600	* 4 500	—
USA					
Ore, concentrates, oxides & vanadates (d)	349	160	316	309	163
Australia					
Ores & concentrates (e)	10 541	711	165	...	...

Note: In this table the description 'pentoxide' also includes vanadium oxides and hydroxides, if any

(a) IGS estimates, based on known imports into certain countries

(b) Output from the South West Africa Co Ltd, years ended 30 June of that stated

(c) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(d) V₂O₅ content

(e) Years ended 30 June of that stated

Vanadium

Imports of Vanadium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Vanadiferous residues	...	997	893	960	596
Pentoxide	822	989	702	875	93
Vanadium-titanium pig-iron	362	100	200	100	49
Metal	11	17	59	103	100
Belgium-Luxembourg					
Vanadiferous residues	5 738	6 790	7 815	5 085	6 272
Pentoxide	9 151	1 009	643	1 771	1 169
Metal	16	39	20	20	—
France					
Vanadiferous residues	1 459	47	5	—	—
Pentoxide	1 387	1 694	796	1 444	1 315
Vanadium-titanium pig-iron	4 564	173	101	51	50
Metal	6	1	1	1	19
Germany, Federal Republic of					
Vanadiferous residues	26 920	20 531	22 237	26 903	31 766
Pentoxide	408	433	1 324	1 851	710
Vanadium-titanium pig-iron	1 103	280	359	342	410
Metal	5	7	19	27	42
Italy					
Pentoxide	527	417	375	1 009	864
Vanadium-titanium pig-iron	219	200	392	225	250
Vanadiferous residues	3 257	2 094	3 169	3 611	4 891
Netherlands					
Vanadiferous residues (b)	4 469	3 809	7 675	8 802	737
Pentoxide (b)	298	81	74	8	8
Vanadium-titanium pig-iron (b)	40	60	100	100	75
Sweden					
Pentoxide	680	797	700	1 016	990
USA					
Vanadiferous residues (a)	4 686	4 853	4 552	3 617	3 952
Pentoxide	2 064	1 082	719	1 062	1 469
Brazil					
Pentoxide	330	358	667	796	1 215
Japan					
Pentoxide	2 876	3 225	2 052	2 656	4 633

Note: In this table the description 'pentoxide' also includes vanadium oxides and hydroxides, if any

(a) V₂O₅ content

(b) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

Mine Production of Zinc

tonnes (metal content)

Country	1975	1976	1977	1978	1979
United Kingdom (a)	4 000	4 786	7 528	2 718	572
France	13 810	34 700	41 828	39 900	36 583
Germany, Federal Republic of	116 072	115 345	115 638	88 863	117 100
Irish Republic	66 643	62 775	116 298	176 029	205 000
Italy	78 800	86 400	79 300	75 643	65 510
Austria	23 040	22 651	22 037	24 821	22 849
Bulgaria	* 83 000	* 85 500	* 87 000	* 88 000	* 85 000
Czechoslovakia	8 900	9 300	9 400	8 800	8 000
Finland (b)	52 800	59 200	61 317	53 225	52 400
Greece	14 140	29 815	18 427	25 600	24 102
Greenland	152 000	142 000	132 000	143 000	151 000
Hungary	2 200	2 235	2 962	2 827	3 074
Norway	24 004	29 319	31 277	29 592	28 411
Poland	190 000	180 000	218 500	218 500	209 000
Romania	60 000	60 000	55 000	53 000	53 000
Soviet Union	* 1 030 000	* 1 020 000	* 1 040 000	* 1 030 000	* 1 020 000
Spain	85 297	83 730	98 316	146 844	144 200
Sweden	111 325	128 326	140 233	167 373	169 200
Turkey	25 600	33 900	50 300	38 100	27 100
Yugoslavia	103 440	106 641	112 383	103 794	101 700
Algeria	11 300	7 900	3 100	4 200	4 900
Congo	4 000	5 100	5 200	4 800	—
Morocco	19 000	14 500	11 200	5 100	7 500
Namibia	37 700	26 900	38 300	36 600	29 000
South Africa	67 300	77 061	72 416	68 700	56 500
Tunisia	6 355	6 854	7 100	7 400	8 700
Zaire	77 542	70 298	81 832	88 533	76 244
Zambia (c)	46 922	36 327	40 114	42 462	38 213
Canada	1 229 481	1 145 013	1 300 228	1 245 000	1 202 600
Honduras	26 000	25 000	26 500	24 300	19 800
Mexico	288 851	259 183	265 469	244 892	245 500
Nicaragua	11 177	14 287	10 142	3 600	—
USA (b)	425 792	439 543	407 888	302 669	263 672
Argentina	37 351	40 593	39 155	37 000	37 100
Bolivia	46 466	49 206	60 766	59 323	44 141
Brazil	37 400	46 500	52 500	60 200	68 500
Chile	3 174	5 056	3 918	1 814	1 847
Ecuador	83	123	1 229	1 339	700
Peru (b)	364 915	456 000	475 900	457 500	490 800
Burma	4 200	2 300	1 700	2 500	2 900
China	* 135 000	* 135 000	* 150 000	* 150 000	* 155 000
India	22 838	27 100	35 500	39 300	42 000
Iran	80 000	72 000	61 500	45 000	25 000
Japan	258 201	283 630	302 822	291 096	243 400
Korea, Dem. P.R. of	* 160 000	* 150 000	* 150 000	* 145 000	* 135 000
Korea, Republic of	45 919	59 136	68 355	66 440	62 477
Philippines	10 453	11 643	12 442	9 468	10 755
Thailand	5 600	—	—	—	1 000
Vietnam	10 000	10 000	10 000	10 000	10 000
Australia	500 846	468 586	491 608	473 293	528 107
World total	6 200 000	6 200 000	6 600 000	6 400 000	6 300 000

(a) In a mixed copper-zinc concentrate

(b) Recoverable

(c) Smelter

Zinc

Smelter Production of Zinc

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	53 442	41 583	81 481	73 575	76 686
Belgium	218 200	236 100	258 223	240 511	261 720
France	181 127	233 496	238 271	231 197	248 977
Germany, Federal Republic of	294 725	304 754	354 780	306 836	317 000
Italy	179 732	191 246	176 593	184 900	202 782
Netherlands	116 000	123 200	109 400	135 300	153 900
Austria	16 273	16 547	16 774	21 655	23 238
Bulgaria	* 80 000	* 92 500	* 90 000	* 91 000	* 89 000
Finland	109 885	110 633	138 000	133 000	146 600
German Democratic Republic	* 15 200	* 15 000	* 15 500	* 16 000	* 17 000
Norway	60 891	64 352	69 790	71 628	77 495
Poland	243 000	237 000	228 200	222 000	209 000
Romania	48 696	53 370	51 860	49 790	46 486
Soviet Union	* 1 030 000	* 1 000 000	* 1 020 000	* 1 055 000	* 1 085 000
Spain	138 045	161 136	154 600	167 500	182 700
Yugoslavia	89 062	95 469	98 845	95 232	98 906
Algeria	5 000	6 000	16 000	25 700	27 300
South Africa	63 723	66 299	76 000	79 100	75 400
Zaire	65 588	60 622	51 490	43 565	43 693
Zambia	46 922	36 327	40 114	42 462	38 213
Canada	426 941	472 316	494 888	495 400	580 500
Mexico	154 993	175 792	175 166	173 793	* 160 000
USA	397 393	452 554	408 365	404 487	487 544
Argentina	39 500	35 200	29 000	23 900	36 700
Brazil	31 428	43 154	47 032	56 097	63 500
Peru	65 712	64 680	66 949	62 900	68 200
China	* 140 000	* 150 000	* 155 000	* 160 000	* 160 000
India	25 730	26 785	35 997	59 354	63 326
Japan	701 794	742 069	778 406	767 949	789 352
Korea, Dem. P.R. of	* 140 000	* 135 000	* 135 000	* 130 000	* 120 000
Korea, Republic of	20 937	27 548	32 756	58 970	83 014
Australia	193 310	242 635	249 741	290 066	305 394
World total	5 400 000	5 713 000	5 894 000	5 969 000	6 339 000

Exports of Zinc

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	25 280	7 495	9 795	9 443	—
Unwrought	13 421	7 296	17 160	15 032	12 178
Unwrought alloys	4 456	5 884	6 746	6 576	6 942
Scrap	5 240	4 004	3 856	6 018	4 818
Belgium-Luxembourg					
Ore	22 669	28 200	27 585	11 676	60 645
Unwrought (a)	180 211	188 043	188 824	187 101	193 626
Scrap	4 734	7 075	3 948	4 147	5 369
Denmark					
Unwrought	82	65	760	110	200
Unwrought alloys	51	97	39	22	...
Scrap	3 328	3 675	3 684	4 440	...
France					
Ore	17 235	19 990	24 174	54 588	46 530
Unwrought	15 018	32 136	38 692	51 974	44 533
Unwrought alloys	3 072	2 103	4 190	4 258	2 953
Scrap	2 822	2 895	2 385	1 786	4 280
Germany, Federal Republic of					
Ore	64 158	79 179	76 823	72 494	70 592
Unwrought	69 832	95 211	118 230	76 031	84 089
Unwrought alloys	7 557	9 358	13 205	11 507	12 942
Scrap	6 934	5 245	11 236	7 254	8 824
Irish Republic					
Ores & concentrates	146 535	128 208	210 506	344 426	413 872
Italy					
Ore	10 339	17 039	2 286	32	2 365
Unwrought	28 735	35 971	26 633	27 879	14 051
Unwrought alloys	1 278	3 848	1 099	1 507	2 507
Scrap	703	2 098	2 732	1 445	1 418
Netherlands					
Ore	28 875	24 162	15 142	3 200	11 501
Unwrought	87 521	129 078	101 720	115 465	129 044
Unwrought alloys			7 499	7 740	7 763
Scrap	7 457	5 158	6 053	6 352	4 419
Austria					
Ore	4 632	6 456	6 600	—	—
Unwrought (a)	236	934	320	656	904
Scrap	42	149	88	75	217
Finland					
Concentrates	3 660	...	—	—	—
Unwrought	78 576	108 057	124 165	109 752	124 030
Unwrought alloys	1 190	242	—	3 853	5 535
Scrap	375	956	474	6	501
Greece					
Ores & concentrates	26 109	50 462	23 364	45 005	47 490
Greenland					
Ores & concentrates	169 467	135 007	135 772	138 737	...
Norway					
Ore	14 765	18 898	17 717	12 242	13 241
Unwrought	32 759	46 254	53 741	48 228	56 778
Unwrought alloys	9 054	12 072	6 876	8 801	5 155
Scrap	114	347	395	871	1 089
Poland					
Unwrought	84 524	58 586	59 231	43 161	36 300
Soviet Union					
Unwrought	100 575	* 100 000	* 100 000	* 100 000	* 100 000
Spain					
Ore	7 378	6 545	4 657	7 515	13 891
Unwrought (a)	30 549	34 491	38 030	81 838	84 078
Sweden					
Ore	211 765	253 367	280 901	293 044	347 574
Unwrought (a)	475	575	313	167	249
Scrap	511	3 527	4 113	5 241	3 347

Zinc

Exports of Zinc

tonnes

Country	1975	1976	1977	1978	1979
Switzerland					
Unwrought	641	30	48	207	151
Scrap	945	1 038	671	757	1 242
Turkey					
Ores & concentrates	51 549	25 952	17 716	...	...
Yugoslavia					
Concentrates	7 698	594	...	2 271	6 600
Unwrought (a)	51 208	47 962	41 968	45 241	31 579
Algeria					
Ore	—	—	17 090	—	...
Unwrought	6 542	6 032	14 412	17 749	...
Scrap	666	293	84	30	...
Morocco					
Ore	26 499	19 091	21 115	15 409	16 317
South Africa					
Ores & concentrates	66 706	86 048	59 569	41 600	37 367
Unwrought (b)	* 1 900	* 3 300	* 5 500	* 8 100	...
Tunisia					
Ore	8 196	15 586	5 440	3 525	...
Zaire					
Ores & concentrates	206	—	—	...	...
Unwrought	40 975	35 288	47 343	28 020	30 800
Zambia					
Unwrought	41 264	51 100	34 800	39 500	42 700
Canada					
Ore (c)	705 088	644 094	598 451	686 232	598 531
Unwrought	249 817	354 480	298 898	443 554	433 016
Scrap	16 305	16 186	19 137	19 173	15 443
Guatemala					
Ore	—	160	1 856	...	...
Honduras					
Ores & concentrates	52 462	46 570	52 716	51 481	...
Mexico					
Ores & concentrates	115 644	153 476	140 914	125 520	...
Unwrought	92 445	122 944	106 143	104 666	...
Nicaragua					
Ores & concentrates	17 000	24 000	...	12 000	—
USA					
Ore	...	...	...	10 973	20 095
Unwrought (a)	10 655	5 048	1 524	1 107	765
Scrap (c)	4 631	8 164	8 373	14 985	28 149
Argentina					
Unwrought	—	1 212	271	...	...
Bolivia					
Ores (c)	49 544	49 207	61 356	51 621	53 923
Brazil					
Ore	8 510	7 067	6 128	5 688	9 108
Peru					
Concentrates	647 621	665 883	610 728	703 199	...
Unwrought	58 771	73 656	77 582	64 935	...
Burma					
Concentrates	6 985	...	...	...	...
Hong Kong					
Unwrought (Re-exports)	127	615	2 289	3 152	2 962
Iran (d)					
Ore	63 308	32 765	...	...	...
Japan					
Unwrought	52 841	76 127	70 105	57 857	37 294
Unwrought alloys	3 076	2 693	2 173	1 372	928
Scrap	300	1 304	3 063	4 245	2 640

Exports of Zinc

Country	1975	1976	1977	1978	1979
Korea, Republic of					
Ore	47 620	48 786	48 573	...	...
Philippines					
Concentrates	14 778	17 490	24 234	16 126	22 295
Scrap	354	36	—	—	305
Singapore					
Unwrought	1 701	2 687	4 257	8 137	2 945
Scrap	179	559	226	698	1 018
Australia					
Ores & concentrates (c)	177 418	235 310	175 009	243 374	* 205 000
Unwrought (a)	117 693	152 699	151 772	215 368	160 988

Note: In this table the description 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 2) and comprises blocks, pigs, slabs, etc

(a) Including alloys

(b) IGS estimates, based on known imports into certain countries

(c) Zn content

(d) Years ended 20 March following that stated

Imports of Zinc

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Ores & concentrates	108 161	119 081	182 749	160 201	182 067
Unwrought	192 180	193 523	197 888	181 527	176 173
Unwrought alloys	7 384	8 991	5 400	7 117	1 973
Scrap	1 828	3 319	1 755	1 036	1 431
Belgium-Luxembourg					
Ore	610 984	594 982	544 917	532 471	554 133
Unwrought (a)	23 885	29 051	28 854	24 927	51 484
Scrap	14 330	8 316	9 448	5 551	6 648
Denmark					
Unwrought	11 159	10 152	13 793	13 614	16 000
Unwrought alloys	1 475	1 719	2 140	1 773	...
Scrap	61	123	245	270	...
France					
Ore	388 657	459 300	466 580	454 582	494 334
Unwrought	62 266	61 903	64 829	76 451	79 860
Unwrought alloys	12 667	21 247	21 306	17 281	21 393
Scrap	13 236	12 191	7 997	8 028	4 600
Germany, Federal Republic of					
Ore	550 887	601 349	562 456	498 930	502 951
Unwrought	86 729	124 441	123 008	139 880	151 729
Unwrought alloys	3 806	9 336	14 934	12 415	12 821
Scrap	5 414	6 339	4 859	9 637	12 369
Irish Republic					
Unwrought (a)	2 419	2 820	2 020	2 184	2 810
Italy					
Ore	193 940	242 140	193 432	206 600	232 587
Unwrought	39 204	44 540	49 971	43 097	44 845
Unwrought alloys	7 612	9 305	15 221	10 945	11 651
Scrap	2 971	2 107	1 553	1 710	4 022
Netherlands					
Ore	295 722	309 138	262 532	307 817	340 492
Unwrought	25 510	27 964	27 248	21 803	22 375
Unwrought alloys	940	813	992	423	324
Scrap	4 031	4 476	6 118	7 191	9 447
Austria					
Ore	128	7	2 200	1	5 621
Unwrought	7 571	5 237	7 896	4 080	4 469
Scrap	155	191	54	322	579
Finland					
Ore	121 358	110 391	127 162	169 199	146 816
Unwrought (a)	2 488	2 148	1 534	197	1 310
German Democratic Republic					
Unwrought (a)	49 998	...	...	...	...
Greece					
Unwrought	11 628	12 936	13 350	15 886	20 942
Hungary					
Crude & refined (g)	26 513	28 735	21 709	22 820	22 471
Iceland					
Unwrought (a)	43	63	130	143	72
Norway					
Ore	61 983	72 146	57 581	74 386	73 102
Unwrought (a)	4 140	3 099	2 458	733	884
Scrap	2 693	3 155	1 604	1 713	2 629
Poland					
Concentrates	137 196	125 431	68 451	28 640	...
Unwrought	2 908	3 797	2 624	2 520	...
Portugal					
Unwrought	8 131	12 547	15 218	17 139	13 928
Scrap	36	138	105	98	781

Imports of Zinc

Country	1975	1976	1977	1978	1979
Soviet Union					
Unwrought	44 504	* 45 000	* 45 000	* 60 000	* 45 000
Unwrought alloys	4 576	* 4 000	* 4 000	* 4 000	* 4 000
Spain					
Ore	137 900	117 814	117 343	78 451	111 703
Unwrought (a)(b)	253	423	571	997	830
Sweden					
Unwrought	43 356	39 130	31 093	35 519	36 241
Unwrought alloys	4 981	4 462	3 323	3 920	5 377
Scrap	227	193	109	16	71
Switzerland					
Unwrought	16 887	20 169	26 696	25 855	21 605
Turkey					
Unwrought	17 383	23 450	18 150	1 515	475
Yugoslavia					
Concentrates	58 046	67 891	33 482	33 465	55 760
Unwrought	18 772	12 973	14 127	4 794	4 779
Algeria					
Unwrought	2 188	201	—	49	...
Egypt					
Unwrought	8 363	1 464	1 222	2 597	2 865
Ghana					
Unwrought (a)	206	...	...	...	...
Ivory Coast					
Unwrought (b)	781	2 050	2 995	3 800	5 188
Kenya					
Unwrought (a)	876	2 056	4 279	8 000	4 735
Libya					
Unwrought	1 332	1	0	151	...
Morocco					
Unwrought	1 085	1 948	2 299	2 785	2 948
Mozambique					
Unwrought	214	425	145	...	...
Nigeria					
Unwrought (a)	10 116	9 961	...	...	...
South Africa					
Ores & concentrates	20 704	22 095	1	4 196	—
Unwrought	1 880	410	463	11	...
Scrap	306	320	61	167	...
Sudan					
Unwrought	...	250	—	600	...
Tanzania					
Unwrought (a)	3 732	4 095	3 532	30 266	...
Tunisia					
Unwrought (b)	723	848	1 042	1 018	...
Uganda					
Unwrought (a)	167	33	...	...	...
Canada					
Ores & concentrates (b)(c)	756	3 449	6 048	6 145	9 868
Unwrought	802	12 703	3 486	2 677	2 876
Costa Rica					
Unwrought (a)	921	3 205	4 364	...	...
Honduras					
Unwrought	427	692	661	1 631	...
Jamaica					
Unwrought	695	749	1 270	1 269	...
Nicaragua					
Unwrought	292	130	...	...	236
Trinidad & Tobago					
Unwrought	224	484	462	1 096	...

Zinc

Imports of Zinc

tonnes

Country	1975	1976	1977	1978	1979
USA					
Ore (c)	131 350	88 101	111 410	188 003	224 952
Unwrought (a)	345 257	648 198	523 489	617 863	527 213
Scrap	1 286	1 635	9 188	3 310	3 259
Argentina					
Unwrought	4 083	3 258	2 359	...	...
Brazil					
Unwrought	42 562	50 429	58 455	67 122	60 010
Unwrought alloys	7 602	3 663	24	189	48
Colombia					
Unwrought (a)	...	11 630	11 075	...	...
Uruguay					
Unwrought	10 876	1 367	1 620	1 965	2 952
Venezuela					
Unwrought	8 267	11 702	18 036	16 273	...
Unwrought alloys	1 532	2 162	2 272	1 696	...
Burma					
Unwrought (a)	114	...	...	...	...
Cyprus					
Unwrought (a)	33	12	41	52	...
Hong Kong					
Unwrought	9 297	17 165	16 884	(a) 25 838	(a) 27 319
Scrap	7	93	5	87	150
India					
Ores & concentrates	23 079	38 493	19 001	83 212	...
Unwrought (d)	24 492	38 155	41 445	39 789	...
Unwrought alloys (d)	6 704	13 320	30 724	19 228	...
Scrap	1 126	590	—	1 015	...
Indonesia					
Unwrought (a)	18 079	28 206	36 645	44 617	46 149
Scrap	840	340	166	—	0
Iran (e)					
Unwrought	8 071	5 505	...	...	...
Israel (h)					
Unwrought	780	1 200	9 889	8 103	...
Japan					
Ore	946 272	986 053	962 984	936 586	959 229
Unwrought	22 181	28 123	28 918	32 088	36 702
Unwrought alloys	—	237	204	1 395	3 792
Scrap	117	316	43	149	243
Korea, Republic of					
Unwrought	3 105	5 961	15 080	11 900	2 800
Scrap	2 192	4 134	5 595	...	...
Malaysia					
Ore	41	29	26	...	...
Unwrought	5 868	8 223	8 841	...	...
Unwrought alloys	748	1 095	759	...	...
Philippines					
Unwrought (a)	9 371	13 985	18 521	27 095	26 549
Singapore					
Unwrought	9 340	11 813	13 653	17 877	17 388
Scrap	108	396	483	403	445
Syria					
Unwrought (b)	315	489	479	326	...
Taiwan					
Unwrought	12 307	26 068	27 891	50 868	37 350
Scrap	1 425	2 156	6 341	7 826	15 756
Thailand					
Unwrought	17 820	19 470	29 301	33 580	28 700

Imports of Zinc

Country	1975	1976	1977	1978	1979
Australia (f)					
Ores & concentrates	6 468	—	—	13	...
New Zealand (f)					
Unwrought (a)	21 485	15 498	23 344	17 311	20 255

Note: In this table the description 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 2) and comprises blocks, pigs, slabs, etc

(a) Including alloys

(b) Including scrap

(c) Zn content

(d) Years ended 31 March following that stated

(e) Years ended 20 March following that stated

(f) Years ended 30 June of that stated

(g) Including semi-manufactures

(h) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Zirconium

Production of Zirconium Minerals

tonnes

Country	1975	1976	1977	1978	1979
South Africa (a)	11 594	11 252	16 825	* 36 000	* 82 000
USA	* 110 000	* 110 000	* 110 000	* 110 000	* 110 000
Brazil (b)	2 925	3 058	4 649	4 301	4 500
Malaysia (c)	10 407	3 131	1 823	950	* 900
Sri Lanka	39	10	374	3 194	1 510
Thailand	383	55	—	25	* 27
Australia (d)	375 548	413 655	393 233	387 824	442 345
World total (Wt. of concs)	553 000	587 000	571 000	585 000	690 000

Note: Zirconium minerals are known to have been produced in other countries including China, India, Democratic Kampuchea, Nigeria, Soviet Union and Spain

- (a) Baddeleyite concentrates
- (b) Zircon and Baddeleyite
- (c) Exports
- (d) Zr content of concentrates

Exports of Zirconium

Country	1975	1976	1977	1978	1979
United Kingdom					
Concentrates	847	859	1 144	602	1 569
France					
Concentrates	798	999	1 086	742	326
Metal	184	319	398	584	940
Germany, Federal Republic of					
Concentrates	4 177	3 791	7 100	6 885	8 205
Metal	104	85	113	97	128
Italy					
Concentrates	21	155	1 288	2 750	3 862
Netherlands					
Concentrates (a)	11 562	9 459	17 311	859	270
South Africa					
Concentrates (b)	4 102	3 319	* 3 000	* 16 000	* 50 000
USA					
Concentrates	18 395	10 353	13 608	7 505	9 039
Metal	838	1 022	910	1 010	1 043
of which: Re-exports	1	16	39	76	205
Malaysia					
Concentrates	10 407	3 131	1 823	...	...
Thailand					
Concentrates	50	—	1	—	...
Australia					
Concentrates	299 336	344 536	327 721	391 275	479 440

(a) Figures up to 1976 exclude exports to Belgium-Luxembourg, if any

(b) From 1977, IGS estimates, based on known imports into certain countries

Zirconium

Imports of Zirconium

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom					
Concentrates	34 654	21 809	33 655	43 015	33 667
Metal	92	95	108	150	227
Belgium-Luxembourg					
Concentrates	756	766	1 927	1 729	2 228
Metal	75	156	117	182	108
France					
Concentrates	34 721	27 822	31 549	38 787	41 904
Metal	178	155	149	496	985
Germany, Federal Republic of					
Concentrates	24 761	(b) 41 674	29 456	36 817	50 185
Metal	332	349	362	348	218
Italy					
Concentrates	34 530	44 448	42 508	42 209	67 273
Netherlands					
Concentrates (a)	17 426	16 906	22 885	230	214
Spain					
Concentrates	9 249	10 393	9 720	20 991	26 526
Sweden					
Concentrates	841	943	665	981	1 129
Metal	137	202	159	148	196
Turkey					
Concentrates	37	121	93	60	...
South Africa					
Concentrates	49	232	129	91	...
Canada					
Metal	222	181	322	326	327
USA					
Concentrates	36 473	58 643	59 152	82 562	100 555
Metal	415	453	579	899	831
Argentina					
Concentrates	822	748	1 295	...	...
Brazil					
Concentrates	6 903	10 864	7 694	11 193	1 249
Japan					
Concentrates	85 389	112 925	68 040	89 729	161 505
Korea, Republic of					
Concentrates	180	536	627	...	...
Malaysia					
Concentrates	206	49	48	...	...
Singapore					
Concentrates	31	35	107	155	377

(a) Figures up to 1976 exclude imports from Belgium-Luxembourg, if any

(b) Including molybdenum ore

Production of Beryl

tonnes

Country	1975	1976	1977	1978	1979
Portugal	25	—	—	0	5
Soviet Union	* 1 600	* 1 650	* 1 700	* 1 750	* 1 800
Angola	30	—	—	—	—
Madagascar	15	17	* 15	11	5
Rwanda	18	46	68	80	* 20
South Africa	3	3	3	4	1
Uganda	* 55	* 55	* 45	...	...
Zambia	* 200	...	—	—	...
Zimbabwe	291	94	103	35	28
Argentina	167	112	165	199	180
Brazil (a)	646	369	450	739	453

Production of Borates (b)

tonnes

Country	1975	1976	1977	1978	1979
Soviet Union	...	* 181 000	* 181 000	* 200 000	* 200 000
Turkey	964 215	911 756	1 100 472	1 319 575	* 907 000
USA (c)	1 063 000	1 130 000	1 333 000	1 410 000	1 442 000
Argentina	76 629	80 851	83 051	68 000	64 000
Chile	...	3 600	4 500	26 300	27 200
Peru	...	9 100	18 100	20 000	27 200

Production of Germanium (j)

tonnes (metal content)

Country	1975	1976	1977	1978	1979
Soviet Union	* 10	* 14	* 14	* 14	* 14
Namibia	* 9	* 9	...	...	...
Zaire	12	—	—	—	—
USA (f)	* 14	* 16	* 16	* 19	* 23
Japan	15	16	13	11	10

Production of Primary Magnesium Metal

tonnes

Country	1975	1976	1977	1978	1979
France	7 532	8 035	8 683	8 500	9 043
Italy	6 344	7 033	7 286	7 729	6 476
Norway	38 337	38 808	38 165	39 160	43 995
Soviet Union	* 60 000	* 63 000	* 65 000	* 70 000	* 72 000
Yugoslavia	—	—	—	500	* 2 000
Canada	3 826	6 092	7 633	8 309	9 172
USA	* 109 000	* 109 000	* 114 000	* 136 000	* 147 200
China	* 1 000	* 1 000	* 1 000	* 1 000	* 1 000
India	—	30	107	23	28
Japan	8 700	11 200	9 400	11 200	11 400

Production of Nepheline Syenite (e)

tonnes

Country	1975	1976	1977	1978	1979
Norway	200 853	216 607	210 012	231 273	242 465
Canada	468 427	540 121	574 558	599 121	617 000

Production of Perlite (k)

tonnes

Country	1975	1976	1977	1978	1979
Italy (k)	...	...	...	...	...
Czechoslovakia (o)	...	...	...	40 037	38 853
Greece	163 391	228 081	358 153	224 000	325 098
Hungary	72 040	96 180	103 270	92 630	97 895
Soviet Union (k)	...	...	...	...	...
Turkey	10 527	24 546	14 640	36 612	44 454
Mexico	19 066	14 555	22 429	24 517	25 000
USA	640 000	660 000	790 000	852 000	768 000
Japan (k)	...	...	...	...	...
Philippines	665	1 649	1 864	2 681	* 2 000
Australia	3 447	3 448	2 115	1 417	* 2 700
New Zealand	1 500	1 500	1 000	558	2 209

Production of Selenium Metal (i)

tonnes

Country	1975	1976	1977	1978	1979
Belgium (a)	40	72	167	157	...
Finland	8	10	12	17	18
Sweden	67	70	80	56	* 65
Yugoslavia	43	45	50	53	* 45
Canada (f)	342	226	411	408	* 400
Mexico	58	58	50	80	82
USA	162	182	227	231	266
Chile	12	15	8	8	8
Peru	7	9	16	13	14
Japan	417	460	456	* 454	* 450

Production of Strontium Minerals

tonnes

Country	1975	1976	1977	1978	1979
United Kingdom	1 934	5 365	5 142	4 324	6 078
Italy	* 670	* 670	* 670	570	...
Spain	7 040	6 600	9 680	12 320	...
Turkey	...	* 6 350	19 810	14 550	20 529
Algeria	4 300	6 483	5 100	5 822	* 5 450
Canada	10 000	3 884	—	—	—
Mexico	14 722	22 157	45 633	33 169	* 34 000
Argentina (g)	1 467	2 054	839	898	900
Iran (m)	...	* 5 400	* 10 000	* 15 000	* 8 000
Pakistan (n)	1 017	686	365	402	* 350

Production of Tellurium Metal (l)

tonnes

Country	1975	1976	1977	1978	1979
Canada (f)	42	53	37	27	* 30
USA	59	* 60	* 70	* 70	* 70
Peru	21	12	18	15	14
Japan	33	23	* 70	* 75	* 80

Mine Production of Uranium (h)

tonnes (metal content)

Country	1975	1976	1977	1978	1979
France	1 730	1 871	2 048	2 174	2 390
Germany, Federal Republic of	57	38	15	41	...
Portugal	115	86	94	86	113
Spain	147	192	163	153	...
Gabon	930	965	907	1 022	1 100
Namibia	—	593	2 340	2 693	3 831
Niger	1 305	1 460	1 441	2 062	3 616
South Africa	2 488	2 788	3 368	3 975	4 800
Canada	4 679	5 438	5 787	8 211	6 956
USA	8 900	9 750	11 360	14 250	* 13 990
Argentina	32	174	185	183	* 120
Australia	...	359	356	516	* 600
World total	20 400	23 700	28 100	35 400	37 700
World total (U ₃ O ₈ equivalent)	24 100	28 000	33 200	41 800	44 500

Production of Vermiculite

tonnes

Country	1975	1976	1977	1978	1979
Kenya	7 483	3 587	4 320	1 893	2 261
South Africa	207 529	222 077	165 419	209 093	191 573
Tanzania	* 20	* 20	* 20	* 20	* 20
USA (c)	299 000	276 000	326 000	306 000	314 000
Argentina	3 412	4 098	4 825	5 343	5 400
Brazil	800	946	6 833	19 611	20 000
India	2 245	3 435	2 878	1 886	3 063
Australia	268	716	—	244	...

Production of Wollastonite (d)

tonnes

Country	1975	1976	1977	1978	1979
Finland	13 091	6 165	8 900	7 700	10 600
Kenya	60	120	300	102	200
Mexico	543	1 143	692	5 653	...
USA	* 46 000	* 68 000	* 63 000	* 72 000	* 68 000
India	1 102	4 541	3 330	1 928	3 729

(a) Exports

(b) Borates are also known to have been produced in Federal Republic of Germany, Iran and China

(c) Sold or used by producers

(d) Wollastonite is also known to have been produced in Turkey

(e) Large quantities of nepheline syenite are known to be produced in the Soviet Union

(f) Includes production of secondary metal

(g) May contain unbeneficiated material

(h) Uranium is also known to have been produced in other countries including Brazil, China, Czechoslovakia, India, Japan and Soviet Union

(i) Other countries known to produce selenium metal include Australia, Federal Republic of Germany, Soviet Union and possibly Zambia since 1976

(j) Belgium-Luxembourg and the Federal Republic of Germany are known to refine sizeable amounts of germanium from imported or domestic material. Other countries known to produce smaller amounts include United Kingdom, France, Italy and Yugoslavia

(k) Perlite is also known to be produced in Italy (about 100,000 tonnes a year), Soviet Union (in excess of 300,000 tonnes a year), Japan (60-70,000 tonnes a year), Bulgaria, Iceland, South Africa and Yugoslavia

(l) Other countries known to produce tellurium metal include Australia, Belgium, Federal Republic of Germany and Soviet Union

(m) Years ended 20 March following that stated

(n) Years ended 30 June of that stated

(o) Expanded

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