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**INDIAN BUREAU OF MINES**  
**MINERAL ECONOMICS DIVISION**  
**WORLD MINERAL INTELLIGENCE UNIT**

**WORLD MINERAL PRODUCTION**  
**2014-2016**

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## World Production of Alumina

(By principal Countries)

(In '000 tonnes of Al<sub>2</sub>O<sub>3</sub> content)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>109100</b>	<b>116900</b>	<b>118900</b>
Australia	20495	20097	20681
Brazil	10404	10452	10886
Canada	1563	1561	1566
China	52399	58979	60907
Germany <sup>e</sup>	1000	1000	1000
India	4024	5400 <sup>e</sup>	5800 <sup>e</sup>
Ireland, Republic of	1271	1283	1284
Jamaica	1851	1865	1865
Kazakhstan	1628	1448	1500
Russia	2572	2593	2682
Spain	1517	1633	1579
Suriname	1149	780	0
USA	4461	4234	2500 <sup>e</sup>
Ukraine	1455	1481	1510
Other countries	3331	4061	5138

Source : World Mineral Production,2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e: Estimated

**World Production of Aluminium ( Primary)  
(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>54200</b>	<b>57800</b>	<b>58800</b>
Australia	1703	1646	1635
Bahrain	931	961	971
Brazil	962	772	793
Canada	2858	2880	3209
China	28317	31410	31873
Iceland	699	725	700
India	2027	2355	2897
Norway	1182	1224	1247
Russia	3488	3529	3561
Saudi Arabia	662	839	869
South Africa	745	695	701
USA	1710	1587	818
UAE	2296	2397	2471
Other countries	6606	6784	7033

Source: World Mineral Production 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics).

**World Mine Production of Antimony  
(By Principal Countries)**

(In tonnes of metal content)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>181000</b>	<b>145000</b>	<b>143000</b>
Australia	3680	3926	5004
Bolivia	4186	3843	2669
Myanmar	10585	5777	2780
Canada	5	1	0
China	140389	112000	107525
Guatemala	0	0	25
Honduras	13	14	0
Iran	432	216	200
Kazakhstan	800	700	900
Kyrgyzstan	1450	1200	1880
Laos	620	1166	242
Mexico	266	90	166
Morocco	0	0	0
Pakistan	127	114	21
Russia	6400	7420	6620
South Africa	816	400	1200
Tajikistan	6500	5400	12000
Thailand	706	700	32
Turkey	3013	1917	2000
Vietnam	1098	219	204

Source: World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Asbestos**  
**(By Principal Countries)**

(In '000 tonnes)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
Brazil	311	300 <sup>e</sup>	300 <sup>e</sup>
China <sup>e</sup>	410	400	400
Kazakhstan	213	180	193
Russia	800 <sup>e</sup>	650	692
Other countries	0.1	0	0

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

**World Production of Barites  
(By Principal Countries)**

(In '000 tonnes)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>9000</b>	<b>8300</b>	<b>7600</b>
Algeria	57	44	44 <sup>e</sup>
Bolivia	26	47	17
Brazil <sup>e</sup>	41	50	40
Bulgaria	20	60	55
Canada	35	32	32
China	4100	3500	3100
Germany	88	45	49
India	911	700 <sup>e</sup>	1300 <sup>e</sup>
Iran	441	405	400 <sup>e</sup>
Kazakhstan	200	210	190
Laos	46	92	82
Mexico	131	266	151
Morocco	1007	1212	550
Pakistan	134	119	158
Russia	220 <sup>e</sup>	361	434
Slovakia	21	20	25
Thailand	135	171	223
Turkey <sup>e</sup>	340	310	240
USA	663	425	316 <sup>e</sup>
UK <sup>e</sup>	44	50	56
Vietnam	140	80	50
Other countries	234	126	62

Source: World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:-Estimated



**World Production of Bauxite  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>260000</b>	<b>291000</b>	<b>289000</b>
Australia	78632	80910	83517
Brazil	36313	37064	39244
China	59212	60788	68000 <sup>e</sup>
Greece	1876	1831	1880
Guinea	19182	19470	30800
Guyana	1564	1526	1479
India	22494	28124	24665
Jamaica	9677	9629	8540
Kazakhstan	4516	4683	4802
Malaysia <sup>e</sup>	3500	27700	6670
Russia	5589	5398	5432
Saudi Arabia	2076	2174	3843
Suriname	2708	1865	0
Other countries	12713	10190	10400

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Bentonite  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>16900</b>	<b>18200</b>	<b>16300</b>
Argentina <sup>e</sup>	225	200	200
Brazil	405	400 <sup>e</sup>	400 <sup>e</sup>
China <sup>e</sup>	3650	3650	3650
Cyprus	140	127	117
Czech Republic	301	369	374
Germany	395	393	393
Greece	1011	1150	930
India <sup>e</sup>	1371	1457	1745
Iran	403	487	600
Japan <sup>e</sup>	420	420	420
Mexico	520	294	290 <sup>e</sup>
Russia	460 <sup>e</sup>	498	589
Slovakia	205	205	158
South Africa	170	164	149
Spain	106	101	106
Thailand <sup>e</sup>	150	150	150
Turkey	1088	3135	1210
USA	4800	4040	3800 <sup>e</sup>
Ukraine <sup>e</sup>	219	219	219
Other countries	816	745	806

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Borates  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
Argentina <sup>e</sup>	600	480	520
Bolivia	168	166	200
Chile	497	518	559
China <sup>e b</sup>	160	160	160
Kazakhstan <sup>e</sup>	30	500	510
Peru	240	663	34
Turkey	3143	2181	2000 <sup>e</sup>
USA <sup>e</sup>	1300	1300	1300
Other countries	251	81	81

Source: - World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

b:- B<sub>2</sub>O<sub>3</sub> equivalent

**World Production of Cadmium  
(By Principal Countries)**

Country	(In tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>25500</b>	<b>24900</b>	<b>26500</b>
Bulgaria	382	344	350
Canada	1187	1159	2305
China	8201	8162	8100 <sup>e</sup>
Germany <sup>c</sup>	400	400	400
Japan	2039	2188	2170
Kazakhstan	1633	1475	2682
Korea (Rep. of)	5645	5600 <sup>e</sup>	4600
Mexico	1409	1283	1244
Netherlands <sup>c</sup>	620	620	620
Norway <sup>c</sup>	310	310	335
Peru	769	757	820
Poland	628	383	319
Russia <sup>c</sup>	1200	1300	1700
USA <sup>c</sup>	550	500	400
Other countries	499	439	435

Source: - World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Chromium Ores and  
Concentrates  
(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>33100</b>	<b>34800</b>	<b>34800</b>
Albania	684	640	713
Brazil	717	700 <sup>e</sup>	700 <sup>e</sup>
Finland <sup>a</sup>	1035	946	1070
India	2164	2916	3728
Iran	359	277	275 <sup>e</sup>
Kazakhstan	5411	5383	5546
Oman	751	443	451
Pakistan <sup>e</sup>	350	330	230
Russia	380	503	503 <sup>e</sup>
South Africa	14038	15684	14705
Turkey	6611	6600 <sup>e</sup>	6600 <sup>e</sup>
Zimbabwe	408	208	112
Other countries	202	144	137

Source: - World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:- Concentrates

**World Production of Coal and Lignite**  
(By Principal Countries)

Country	(in million tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>8164</b>	<b>7925</b>	<b>7388</b>
<b>Australia</b>			
Bituminous <sup>1</sup>	442	441	444
Brown coal	58	61	60
<b>Bosnia &amp; Herzegovina</b>			
Brown coal & lignite	12	12	13
<b>Bulgaria</b>			
Brown coal & Lignite	31	36	31
<b>Canada</b>			
Coal	69	62	61
<b>China</b>			
Coal	3874	3747	3364
<b>Colombia</b>			
Bituminous	89	86	91
<b>Czech Republic</b>			
Bituminous	8	8	6
Brown coal	38	38	39
<b>Germany</b>			
Anthracite & Bituminous	8	7	4
Brown coal	178	178	172
<b>Greece</b>			
Lignite	50	46	33
<b>India</b>			
Bituminous	609	639	660
Lignite	48	44	45
<b>Indonesia</b>			
Anthracite & Bituminous	458	462	456
<b>Kazakhstan</b>			
Bituminous	108	102	97
Lignite	7	6	5
<b>Korea, Dem. P.R.</b>			
Coal <sup>e</sup>	41	41	41
<b>Mexico</b>			
Bituminous	16	9	9 <sup>e</sup>

Country	2014	2015	2016
<b>Mongolia</b>			
Brown coal & Lignite	24	24	35
<b>Poland</b>			
Bituminous	66	65	66
Lignite	64	63	60
<b>Romania</b>			
Anthracite & Bituminous	2	1	1 <sup>e</sup>
Lignite	23	25	23
<b>Russia</b>			
Coal	356	372	385
<b>Serbia</b>			
Lignite	29	37	39
<b>South Africa</b>			
Anthracite & Bituminous	261	252	251
<b>Thailand</b>			
Lignite	18	15	17
<b>Turkey</b>			
Anthracite	2	2	2 <sup>e</sup>
Lignite	71	58	58 <sup>e</sup>
<b>USA</b>			
Hard coal	835	749	594
Lignite	72	65	66
<b>Ukraine</b>			
Bituminous	46	30	30 <sup>e</sup>
<b>UK</b>			
Bituminous <sup>d</sup>	12	9	4
<b>Vietnam</b>			
Anthracite	41	42	39
<b>Other countries</b>			
Coal & Lignite	97	92	85

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

d:- Including Anthracite

l :- Including Sub-bituminous

Coal :- All ranks of coal.

Hard coal :- Including Anthracite, Bituminous &  
Sub-bituminous.

**World Mine Production of Cobalt  
(By Principal Countries)**

(In tonnes of metal content)			
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>134000</b>	<b>145000</b>	<b>128000</b>
Australia	6252	6777	6012
Brazil	3838	3800 <sup>e</sup>	3600 <sup>e</sup>
Canada	6907	7489	6969
China	9619	10093	10500 <sup>e</sup>
Congo, Dem. P. R.	75560	83529	68822
Cuba	3210	3734	3694
Finland	2104	2119	2308
Madagascar	3221	3920	3370
Morocco <sup>a</sup>	1391	1722	2081
New Caledonia	4681	5098	4350
Papua New Guinea	2134	2505	2191
Philippines	4094	4140	2554
Poland	1640	1730	1670
Russia <sup>a</sup>	2302	2040	2100
South Africa <sup>a</sup>	1332	1362	1101
Zambia <sup>a</sup>	4317	2997	4725
Other countries	1226	2058	1831

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:- Metal and/or refined



**World Mine Production of Copper**  
**(By Principal Countries)**

(In '000 tonnes of metal content)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>18600</b>	<b>19400</b>	<b>20700</b>
Australia	979	996	948
Brazil	301	359	338
Canada	673	715	708
Chile	5761	5772	5553
China	1777	1770	1850
Congo, Dem. P.R.	1030	1039	1024
Indonesia	377	577	786
Iran	217	246	289
Kazakhstan	472	474	475
Mexico	515	594	766
Mongolia	252	314	508
Peru	1378	1701	2354
Poland	421	426	424
Russia	692	711	685
USA	1385	1416	1462
Zambia	707	719	774
Other countries	1636	1591	1751

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/minerlsuk/statistics](http://www.bgs.ac.uk/minerlsuk/statistics)

**World Production of Cement<sup>e</sup>**  
**(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>4180000</b>	<b>4100000</b>	<b>4100000</b>
Brazil	72000	65300	57000
China	2480000	2350000	2400000
Egypt	50000	55000	55000
Germany	32000	-	-
India	260000	300000	280000
Indonesia	65000	58000	63000
Iran	65000	58600	55000
Italy	22000	-	-
Japan	53800	54800	53300
Korea, Rep. of	63200	51700	57000
Mexico	35000	-	-
Pakistan	32000	-	-
Russia	68400	62100	56000
Saudi Arabia	55000	61900	62000
Thailand	35000	-	-
Turkey	75000	71400	75400
USA*	83200	84300	85000
Vietnam	60500	67400	77300
Other countries (rounded)	573000	760000	724000

Source: Mineral Commodity Summaries, 2017 & 2018, USGS .  
<https://minerals.usgs.gov/minerals/pubs/mcs>

e- Estimated.

\* Includes Puerto Rico

- :- Not available

**World Production of Diamond  
(By Principal Countries)**

	(In '000 carats)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>124500</b>	<b>126400</b>	<b>121700</b>
Angola	8791	9019	9022
Australia	9288	13561	13958
Botswana	24658	20824	20954
Canada	12082	11677	11104
Congo, Dem. P. R.	14689	14284	12377
Ghana	241	174	142
Lesotho	346	304	342
Namibia	1898	1775	1584
Russia	38304	41912	40322
Sierra Leone	594	500	550
South Africa	8060	8233	8451
Zimbabwe	4772	3491	2103
Other countries	745	695	809

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

**World Production of Diatomite  
(By Principal Countries)**

(In '000 tonnes)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>2536</b>	<b>2391</b>	<b>2389</b>
Argentina	200	200	200
China <sup>e</sup>	420	420	420
Denmark <sup>a</sup>	119	128	114
France <sup>e</sup>	90	90	90
Japan <sup>e</sup>	90	100	100
Mexico	88	90	97
Peru	151	121	107
Russia	72	66	47
Turkey	62	87	90 <sup>e</sup>
USA	901	832	850 <sup>e</sup>
Other countries	343	258	273

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:- Molar is an impure diatomite containing a large proportion of clay.

**World Production of Fuller's Earth  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded) <sup>a</sup></b>	<b>3300</b>	<b>3100</b>	<b>2900</b>
Angola	98 <sup>e</sup>	0	0
Australia	10	16	12
Greece			
Attapulгите	45	108	45
India <sup>e</sup>	6	6	6
Korea, Rep. of	54	87	82
Mexico	245	108	108 <sup>e</sup>
Morocco <sup>e c</sup>	60	60	60
Pakistan	6	8	14
Senegal			
Attapulгите	191	188	172
South Africa			
Attapulгите	18	18	16
Spain			
Attapulгите + Sepiolite	582	551	529
Turkey			
Sepiolite <sup>e</sup>	10	10	10
USA	1990	1930	1850 <sup>e</sup>

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:- Including attapulгите and sepiolite.

c:- Smectite

**World Production of Felspar  
(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>25777</b>	<b>28439</b>	<b>29144</b>
Algeria	230	154	155 <sup>e</sup>
Argentina <sup>e</sup>	250	250	250
Brazil	718	700 <sup>e</sup>	700 <sup>e</sup>
China <sup>e</sup>	2500	2500	2500
Czech Republic	412	433	454
Ecuador	183	293	149
Egypt <sup>e</sup>	200	300	300
France <sup>e</sup>	550	550	550
Germany	320	253	285
India	1343	1300 <sup>e</sup>	1300 <sup>e</sup>
Iran	1055	736	750 <sup>e</sup>
Italy <sup>e</sup>	4700	4700	4700
Japan <sup>e,f</sup>	100	100	100
Korea, Rep. of	529	601	654
Malaysia	378	443	327
Mexico	151	159	145
Pakistan	93	142	316
Poland	520	538	511
Portugal <sup>a</sup>	136	179	233
Russia	200 <sup>e</sup>	233	278
Saudi Arabia	168	176	188
South Africa	103	127	131
Spain	533	558	531
Thailand	1413	1330	1167
Turkey	7610	10423	11034
USA	530	510	600 <sup>e</sup>
Vietnam <sup>e</sup>	100	100	100
Other countries	751	652	737

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:- Includes felspathic sand.

f:- Including weathered granite felspar.

**World Production of Fluorspar  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>6800</b>	<b>6500</b>	<b>6200</b>
Argentina <sup>e</sup>	30	30	30
Brazil <sup>b</sup>	24	25 <sup>e</sup>	25 <sup>e</sup>
Bulgaria	131	147	4
China <sup>e</sup>	4300	4400	4200
Germany	58	50	53
Iran	54	57	60 <sup>e</sup>
Kazakhstan <sup>e</sup>	100	100	100
Kenya	97	70	43
Mexico	1110	625	655
Mongolia <sup>e</sup>	338	338	338
Morocco	80	81	81 <sup>e</sup>
South Africa <sup>e</sup>	180	135	180
Spain	135	157	133
Vietnam	91	193	218 <sup>e</sup>
Other countries	85	47	47

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

b:- Including beneficiated and directly shipped material

**World Production of Garnet (Industrial)**  
**(By Principal Countries)**

Country	(In tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>1660000</b>	<b>1690000</b>	<b>1540000</b>
Australia	260000	260000	575000
China	520000	520000	88900
India	800000	800000	500000
South Africa	-	-	271000
USA	32200	55600	56400
Other countries	50000	50000	50000

Source : Mineral Commodity Summaries, 2017 & 2018, USGS.

<https://minerals.usgs.gov/minerals/pubs/mcs>

- :- Not Available



**World Production of Gallium (Primary)**  
**(By Principal Countries)**

(In tonnes)

Country	2014	2015	2016
China	300 <sup>e</sup>	284	189
Germany	16	11	23
Japan	8	6	3
Russia <sup>e</sup>	13	13	13

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Mine Production of Gold  
(By Principal Countries)**

(In tonnes of metal content)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>3060</b>	<b>3150</b>	<b>3200</b>
Argentina	60	63	56
Australia	274	279	288
Brazil	81	83	80
Canada	152	163	165
Chile	46	43	46
China <sup>a</sup>	452	450	453
Colombia	57	59	62
Ghana <sup>e</sup>	138	130	129
Indonesia	69	92	81
Kazakhstan	50	64	75
Mali <sup>e</sup>	45	47	47
Mexico	118	135	132
Papua New Guinea	56	58	62
Peru	140	147	153
Russia	249	251	253
South Africa	152	145	142
Sudan	73	82	93
Tanzania	41	43	44
USA	210	214	222
Uzbekistan <sup>e</sup>	100	100	100
Other countries	499	497	513

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:- Metal production

**World Production of Graphite (Natural)**  
**(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>2200</b>	<b>2200</b>	<b>2100</b>
Austria <sup>a</sup>	23	22	21
Brazil <sup>c</sup>	87	75	82
Canada <sup>e</sup>	30	30	21
China <sup>e d</sup>	1800	1800	1800
India <sup>a</sup>	117	136	122
Korea, Dem. P.R. <sup>e</sup>	10	10	10
Russia	14 <sup>e</sup>	16	19
Turkey <sup>e</sup>	29	32	32
Ukraine	14	15	15
Other countries	43	35	25

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a - Crude

c :- Including beneficiated and directly shipped material

d:-Including flake graphite

**World Production of Gypsum  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>267900</b>	<b>261100</b>	<b>267100</b>
Algeria	2130	2000 <sup>e</sup>	2000 <sup>e</sup>
Argentina <sup>e</sup>	1500	1500	1500
Australia	3624	3825	4282
Austria <sup>a</sup>	730	715	674
Brazil	3447	3500 <sup>e</sup>	3500 <sup>e</sup>
Canada <sup>a</sup>	1811	2682	1704
Chile	843	860	934
China <sup>e</sup>	130000	130000	130000
Egypt <sup>a</sup>	872	850 <sup>e</sup>	850 <sup>e</sup>
France <sup>a</sup>	3279	2027	4183
Germany <sup>a</sup>	4090	4200	3970
India <sup>g</sup>	2478	2500 <sup>e</sup>	2500 <sup>e</sup>
Iran	14870	12294	16000 <sup>e</sup>
Iraq <sup>e</sup>	10462	10460	10460
Italy <sup>a</sup>	5887	572	617
Japan	4674	4670	4700 <sup>e</sup>
Mexico	7044	7102	7100 <sup>e</sup>
Oman	3387	6049	5483
Pakistan	1326	1417	1872
Poland <sup>a</sup>	1232	1099	1118
Russia <sup>e</sup>	4400	4400	4000
Saudi Arabia	1780	1860	2000 <sup>e</sup>
Spain	6925	7404	8662
Thailand <sup>a</sup>	13422	12143	11747
Turkey	9051	8639	8600 <sup>e</sup>
USA	14900	15200	15500 <sup>e</sup>
Ukraine <sup>a</sup>	1525	1255	1255 <sup>e</sup>
UK <sup>e</sup>	1200	1200	1200
Other countries	10970	10685	10699

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a - Including anhydrite

g :- Including selenite

**World Production of Iron Ore  
(By Principal Countries)**

(In million tonnes)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>3386</b>	<b>3300</b>	<b>3305</b>
Australia	740	810	858
Brazil	346	389	424
Canada <sup>f</sup>	44	47	49
Chile	19	15	15
China	1514	1381	1281
India	129	158	192
Iran	52	43	48
Kazakhstan	52	37	35
Mauritania	13	12	13
Mexico	25	20	20 <sup>e</sup>
Russia	102	101	101
South Africa *	81	73	66
Sweden	36	30	32
Ukraine	68	67	67 <sup>e</sup>
USA **	56	46	41
Venezuela	11	12	11 <sup>e</sup>
Other countries	99	59	51

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

f - Including by-product iron ore.

\*:- Including by-product magnetite.

\*\* :- Including manganiferous iron ore and by-product iron ore

**World Production of Pig Iron  
(By Principal Countries)**

(In '000 tonnes)			
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>1263000</b>	<b>1229000</b>	<b>1231000</b>
Brazil	32000 <sup>e</sup>	33000 <sup>e</sup>	35000
China	713748	691413	700736
France	10866	10097	9724
Germany	27943	27844	27269
India	75532	74621	77254
Iran	17333	17005	18300
Japan	83872	81011	80186
Korea Rep. of	46909	47639	46336
Mexico	11093	10074	9268 <sup>e</sup>
Russia	51400	53700	51900
Taiwan	14505	14370	14919
Turkey <sup>e</sup>	20000	20000	20000
USA	29345	25435	22293
Ukraine	24801	21863	21860 <sup>e</sup>
Other countries	103741	101011	95898

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Crude Steel  
(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>1670000</b>	<b>1620000</b>	<b>1623000</b>
Brazil	33912	33200	30200
Canada	12595	12473	12672
China	822306	803825	808366
France	16144	14984	14413
Germany	42943	42674	42081
India	88979	89790	97443
Iran	16257	16805	17000
Italy	23714	22018	23373
Japan	110666	105134	104775
Korea, Rep. of	71542	69670	68575
Mexico	18995	18228	18137 <sup>e</sup>
Russia	70300	69400	69600
Spain	14163	14845	13654
Taiwan	22511	20815	20858
Turkey	34035	31517	33163
USA	88174	78845	78475
UK	12034	10907	7581
Other countries	171024	164797	162856

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Ferro - Alloys**  
**(By Principal Countries)**

		(In tonnes)		
Country	Ferro - Alloys	2014	2015	2016
Australia	FeMn & FeSiMn	269000	278000	222000
Bhutan	FeSi <sup>e</sup>	79500	104500	106000
Brazil	FeCr	188700	173500	175000 <sup>e</sup>
	FeMn <sup>e</sup>	80000	40000	50000
	FeNi	37200	71500	75000 <sup>e</sup>
	FeNb	51700	150000	150000 <sup>e</sup>
	FeSiCr <sup>e</sup>	13000	13000	13000
	FeSiMg <sup>e</sup>	20000	20000	20000
	FeSiMn <sup>e</sup>	230000	230000	230000
	FeSi	230000	200000 <sup>e</sup>	200000 <sup>e</sup>
	Other ferro-alloys <sup>e</sup>	40000	40000	40000
	Canada	FeNb	5770	5760
FeSi		35500	35000 <sup>e</sup>	35000 <sup>e</sup>
China	Ferro-alloys	37860000	36664000	35588000
Colombia	FeNi <sup>e</sup>	113000	100500	101600
Finland	FeCr	441000	457000	469000
France	FeMn	115700	116000 <sup>e</sup>	116000 <sup>e</sup>
	FeSiMn	64800	64800 <sup>e</sup>	64800 <sup>e</sup>
	FeSi	40000	45000 <sup>e</sup>	45000 <sup>e</sup>
Georgia	FeSiMn	243951	217289	244616
Greece	FeNi	94952	89129	87880
Iceland	FeSi	112657	121556	128019
India	FeAl	3737	3212	4345
	FeCr	944000	944000	944000
	FeMn	518000	518000	518000
	FeMo	1295	1459	1603
	FeSiMg	26123	20541	20183
	FeSiMn	249691	269920	300625
	FeSi	90000	90000	90000
	FeTi	545	198	291
	FeV	1035	937	1329
	Other ferro-alloys <sup>e</sup>	730	730	730



Country	Ferro Alloys	2014	2015	2016
Indonesia	FeNi	84255	182000 <sup>e</sup>	411000 <sup>e</sup>
Italy	FeSiMn	67000	82000	80000 <sup>e</sup>
Japan	FeMn	463345	465952	473740
	FeNi	379291	396969	333448
Kazakhstan	FeCr	1351803	1414476	1525222
	FeSiCr	158825	74609	94467
	FeSiMn	200379	164189	125898
	FeSi <sup>e</sup>	470	470	470
Korea, Rep. of	FeMn <sup>e</sup>	355000	355000	355000
	FeSiMn <sup>e</sup>	196000	196000	196000
Mexico	FeSiMn	164852	139363	134251
New Caledonia	FeNi	224884	228484	261420
Norway	FeMn	312400	350000 <sup>e</sup>	300000 <sup>e</sup>
	FeSiMn	314300	315000 <sup>e</sup>	315000 <sup>e</sup>
	FeSi	192389	243813	249475
Russia	FeCr	400000 <sup>e</sup>	363286	268439
	FeMn	170000 <sup>e</sup>	155700	124200
	FeMo	4503	4500 <sup>e</sup>	4500 <sup>e</sup>
	FeNi <sup>e</sup>	20000	20000	20000
	FeSiCr <sup>e</sup>	4200	4200	4200
	FeSiMn	148000 <sup>e</sup>	188895	203216
	FeSi	1050000 <sup>e</sup>	1057909	935912
	FeV	14076	12277	12392
	Other ferro-alloys <sup>e</sup>	34000	34000	34000
South Africa	FeCr <sup>e</sup>	3000000	3000000	3000000
	FeMn <sup>e</sup>	650000	650000	650000
	FeSiMn <sup>e</sup>	150000	150000	150000
	FeSi <sup>e</sup>	90000	90000	90000
	FeV <sup>e</sup>	16000	16000	16000
Spain	FeMn	227000	225000 <sup>e</sup>	220000 <sup>e</sup>
	FeSiMn	128700	130000 <sup>e</sup>	129000 <sup>e</sup>
	FeSi <sup>e</sup>	80500	80000	80000

Country	Ferro - Alloys	2014	2015	2016
Sweden	FeCr	65703	82616	81102
USA	Ferro-Alloys *	502000	525000 <sup>e</sup>	525000 <sup>e</sup>
Ukraine	FeMn	104291	100209	100200 <sup>e</sup>
	FeNi	114222	95209	95200 <sup>e</sup>
	FeSiMn	960657	750181	750200 <sup>e</sup>
	FeSi	167977	114826	114800 <sup>e</sup>
Venezuela	FeNi <sup>e</sup>	50000	50000	50000
	FeSiMn <sup>e</sup>	14000	14000	14000
	FeSi <sup>e</sup>	80000	80000	80000
Zimbabwe	FeCr	325256	190837	190000 <sup>e</sup>

Source: World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e- Estimated.

Note:- FeAl: Ferro-aluminium , FeCr : Ferro-chrome

FeSiCr : Ferro-silico-chrome, FeSiMg : Ferro-silico-magnesium

FeMn : Ferro-manganese, FeSiMn : Ferro-silico-manganese

FeMo : Ferro-molybdenum, FeNi : Ferro-nickle

FeNb : Ferro-niobium, FeSi : Ferro-silicon

FeTi : Ferro-titanium, FeV : Ferro-vanadium

\* Ferro-silicon & silicon metal

**World Production of Ilmenite <sup>1</sup>**  
**(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>11600</b>	<b>10900</b>	<b>10200</b>
<b>(wt. of concentrates)</b>			
Australia*			
Ilmenite	1138	1147	764
Canada <sup>e b c</sup>	2500	1900	1800
China	1902	1900 <sup>e</sup>	1800 <sup>e</sup>
India	641	641 <sup>e</sup>	641 <sup>e</sup>
Kenya	282	445	466
Korea, Rep. of	241	204	167
Madagascar	334	166	268
Mozambique	855	764	903
Norway	864	630	630 <sup>e</sup>
Russia	178	193	60
Senegal	101	428	416
South Africa <sup>e</sup>	1105	1280	1300
USA	100	200	100 <sup>e</sup>
Ukraine <sup>e</sup>	600	600	600
Vietnam	558	238	102
Other countries	176	196	157

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

Some ilmenite is converted to synthetic rutile in Australia, India, Japan, Taiwan and USA.

1:- The figures in this table refer to gross tonnage of titanium concentrates.

\*:- Australia also produced 241, 246, & 250 thousand tonnes of Leucoxene during 2014, 2015 & 2016 respectively.

e:- Estimated

b:- It is believed that the majority of this is processed into slag.

c:- Canada produces some ilmenite which is sold as such and not processed into slag, but tonnages are small.

**World Production of Kaolin  
(By Principal Countries)**

	(In '000 tonnes)		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>23900</b>	<b>23900</b>	<b>23800</b>
Belgium <sup>e</sup>	300	300	300
Brazil <sup>a</sup>	2055	1700	1700
China <sup>e</sup>	3300	3200	3200
Czech Republic <sup>a</sup>	617	648	648
Egypt <sup>e</sup>	300	300	300
France	311	310	310 <sup>e</sup>
Germany	1100	1100	1023
Iran	1880	1169	1500 <sup>e</sup>
Korea, Rep. of	683	588	587
Malaysia	220	295	284
Mexico	546	366	366 <sup>e</sup>
Portugal	269	252	262
Spain	344	392	350
Turkey	734	1887	1900 <sup>e</sup>
UK <sup>e</sup>	1090	1014	940
USA	6310	5990	5710 <sup>e</sup>
Ukraine	1426	1815	1815 <sup>e</sup>
Other countries	2461	2615	2593

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated a:- Beneficiated

**World Production of Kyanite and Related  
Minerals  
(By Principal Countries)**

Country	(In tonnes)		
	2014	2015	2016
<b>Brazil</b>			
Kyanite <sup>e b</sup>	200	200	200
<b>France</b>			
Andalusite <sup>e</sup>	68000	68000	65000
<b>India</b>			
Kyanite	6255	2901	3254
Sillimanite	66273	69942	68137
<b>Madagascar</b>	3000 <sup>e</sup>	1800	2300
<b>Nepal</b>			
Kyanite	12	7	1
<b>South Africa</b>			
Andalusite <sup>e</sup>	270000	270000	270000
<b>USA</b>			
Kyanite <sup>a</sup>	89000 <sup>e</sup>	108000	100000 <sup>e</sup>

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated a:- Including related minerals

b:- Including beneficiated and directly shipped material.

**World Mine Production of Lead**  
**(By Principal Countries)**

(In '000 tonnes of metal content)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>5300</b>	<b>5000</b>	<b>4700</b>
Argentina	30	30	28 <sup>e</sup>
Australia	728	653	453
Bolivia	76	75	90
China	2609	2340	2230
India	111	147	151
Iran	36	41 <sup>e</sup>	42 <sup>e</sup>
Ireland	41	31	20
Kazakhstan	38	41	71
Korea, Dem. P.R. <sup>e</sup>	36	32	37
Macedonia	44	38	31
Mexico	250	264	241
Morocco	28	32	37
Peru	277	316	314
Poland	83	69	63
Russia	196	180	193
South Africa	29	35	39
Sweden	71	79	76
Tajikistan	28	31	47
Turkey	62	33	29
USA	379	367	335 <sup>e</sup>
Other countries	152	134	157

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Magnesite  
(By Principal Countries)**

	(In '000 tonnes )		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>31700</b>	<b>30700</b>	<b>29800</b>
Australia	612	681	489
Austria	754	703	566
Brazil <sup>c</sup>	1152	1150 <sup>e</sup>	1150 <sup>e</sup>
China <sup>e</sup>	20500	19000	19000
Greece	391	383	419
India	285	328	299
Iran	202	152	150 <sup>e</sup>
Korea, Dem. P.R. <sup>e</sup>	250	250	250
Netherlands <sup>a</sup>	286	258	266
Russia <sup>e</sup>	2600	2600	2600
Saudi Arabia	286	294	286
Slovakia	557	501	431 <sup>e</sup>
Spain	837	465	525
Turkey	2377	3335	2800 <sup>e</sup>
Other countries	565	586	595

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated a:- Chloride produced from solution mining

c:- Including beneficiated and directly shipped material.

**World Production of Manganese Ore  
(By Principal Countries)**

	(In '000 tonnes )		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>54500</b>	<b>53400</b>	<b>51200</b>
Australia	7587	6281	5327
Brazil	2723	2817	2800
China <sup>e</sup>	15000	15000	15000
Gabon	4081	4100 <sup>e</sup>	4100 <sup>e</sup>
Ghana	1531	1563	2018
India	2369	2167	2393
Kazakhstan	2609	1626	1569
Malaysia	835	481	701
South Africa <sup>e</sup>	13857	15979	13736
Ukraine	1526	1525 <sup>e</sup>	1525 <sup>e</sup>
Other countries	2416	1881	2009

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated



**World Production of Mica  
(By Principal Countries)**

(In '000 tonnes )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>775</b>	<b>808</b>	<b>802</b>
Brazil	427	450 <sup>e</sup>	450 <sup>e</sup>
Canada <sup>e</sup>	22	22	22
China <sup>e</sup>	159	151	157
Finland	12	12	11
France <sup>e a</sup>	20	21	20
Korea, Rep. of *	24	17	13
Madagascar	9	19	22 <sup>e</sup>
Turkey	17	45	50 <sup>e</sup>
USA <sup>a b</sup>	48	36	30 <sup>e</sup>
Other countries	35	35	27

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a:-Including mica recovered from mica schists  
and/or kaolin beneficiation

b:- Sold or used by producers

\* :- Mainly sericite

**World Mine Production of Molybdenum  
(By Principal Countries)**

(In tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>303000</b>	<b>288000</b>	<b>276000</b>
Armenia	6022	5324	5438
Canada	8681	1983	2764
Chile	48898	52398	55834
China	128538	135000	129150
Iran	4000	6705	6500 <sup>e</sup>
Mexico	14370	11327	11896
Peru	17000	20153	25757
Russia	3114	3254	3300 <sup>e</sup>
USA	68200	47400	31600 <sup>e</sup>
Other countries	4108	4491	3591

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Mine Production of Nickel**  
**(By Principal Countries)**

(In '000 tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>2090</b>	<b>2085</b>	<b>2001</b>
Australia	269	229	203
Botswana	15	17	14
Brazil	86	89	86
Canada	229	235	236
China	101	101	90
Colombia	41	37	37
Cuba	52	54	52
Finland	19	9	21
Greece	21	21	22
Guatemala	47	56	46
Indonesia	188	130	180
Madagascar	37	47	42
Myanmar <sup>e</sup>	21	26	12
New Caledonia	178	186	209
Papua New Guinea	21	26	22
Philippines	393	418	301
Russia	264	261	222
South Africa <sup>b</sup>	55	57	49
USA	4	27	24
Zimbabwe	17	16	18
Other countries	34	42	117

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

b:- Includes metal and metal content of sulphate and concentrates

**World Production of Perlite  
(By Principal Countries)**

(In '000 tonnes )

Country	2014	2015	2016
China <sup>e</sup>	700	700	700
Greece	985	891	700
Hungary	69	65	65 <sup>e</sup>
Iran	351	395	400 <sup>e</sup>
Italy <sup>e</sup>	60	60	60
Philippines	17	36	39
Russia <sup>e</sup>	45	45	45
Thailand	54	17	16
Turkey	879	846	900 <sup>e</sup>
USA	462	459	473 <sup>e</sup>
Ukraine <sup>e</sup>	36	36	36
Other countries	64	58	54

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Pyrophyllite  
(By Principal Countries)**

Country	(in '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>1313</b>	<b>1346</b>	<b>1426</b>
India	147	140 <sup>e</sup>	140 <sup>e</sup>
Japan <sup>e</sup>	340	340	345
Korea, Rep. of	623	597	590
Peru	18	26	18
Saudi Arabia	7	8	42
South Africa	19	17	19
Thailand	49	46	97
Turkey	109	173	175 <sup>e</sup>

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Natural Gas  
(By Principal Countries)**

(In '000 million cubic meter )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>3612</b>	<b>3696</b>	<b>3715</b>
Algeria	83	85	91
Argentina	41	43	45
Australia	67	77	97
Canada	151	154	157
China	130	135	137
Egypt	49	44	42
India	34	32	31
Indonesia	76	76	75
Iran	186	189	202
Kazakhstan	43	45	46
Malaysia	65	63	67
Mexico	64	60	52
Netherlands	69	51	47
Nigeria	45	50	45
Norway	109	117	117
Oman	30	31	32
Pakistan	42	42	42
Qatar	177	181	181
Russia	639	633	639
Saudi Arabia	102	105	109
Thailand	42	40	39
Trinidad & Tobago	42	40	34
Turkmenistan	69	72	69
USA <sup>a</sup>	733	766	749
UAE	58	56	62
UK	39	41	28
Uzbekistan	57	58	63
Other countries	368	409	416

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

a :- Dry gas

**World Production of Crude Petroleum  
(By Principal Countries)**

(In million tonnes )			
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>4216</b>	<b>4353</b>	<b>4377</b>
Algeria	69	67	69
Angola	83	89	88
Argentina	28	28	27
Azerbaijan <sup>b</sup>	42	42	41
Brazil	121	131	135
Canada	186	191	192
China <sup>a</sup>	211	215	207
Colombia	49	53	49
Ecuador	28	29	29
Egypt	35	35	34
India	37	37	36
Indonesia	39	39	37
Iran	174	182	216
Iraq	160	197	219
Kazakhstan	81	79	78
Kuwait <sup>f</sup>	151	149	153
Libya	24	20	19
Malaysia	29	31	32
Mexico	144	134	127
Nigeria	113	112	99
Norway	93	96	98
Oman	47	49	50
Qatar	84	79	79
Russia	525	533	549
Saudi Arabia <sup>f</sup>	543	568	586
USA	543	587	564
UAE	167	176	182
UK	40	47	48
Venezuela	138	136	124
Other countries	230	223	211

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

a:-Including oil from shale and coal

b:- including natural gas liquids

f:- Including shares of production from the Neutral Zone

**World Production of Phosphate Rock  
(By Principal Countries)**

	(In '000 tonnes )		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>242000</b>	<b>268000</b>	<b>276000</b>
Algeria	1418	1289	1300 <sup>e</sup>
Australia	1950	1028	1037
Brazil <sup>b</sup>	6513	5600	6500
China	120438	142039	144398
Egypt	4831	5500 <sup>e</sup>	5500 <sup>e</sup>
India	1607	1572	1181
Israel	2779	3427	3591
Jordan	7144	8336	7991
Kazakhstan <sup>e</sup>	1830	1830	1830
Mexico	1733	3859	2909
Morocco	27390	26264	30000 <sup>e</sup>
Peru	10884	11162	10561
Russia	10700	11500	11500 <sup>e</sup>
Saudi Arabia	1911	2002	5400
Senegal	806	1062	1609
South Africa	2011	1852	1697
Togo	1086	1150	850
Tunisia	3784	3228	3664
USA	25300	27400	27800 <sup>e</sup>
Vietnam	2471	2923	2849
Other countries	5038	4771	4036

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

b:- Including beneficiated and directly shipped material



**World Mine Production of Platinum Group Metals  
(By Principal Countries)**

	(In tonnes of metal content )		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>377.00</b>	<b>455.00</b>	<b>461.00</b>
<b>Botswana</b>			
Platinum	0.12	0.03	0.00
Palladium	0.56	0.16	0.00
<b>Canada <sup>e</sup></b>			
Platinum	12.00	11.90	11.40
Palladium	21.00	20.80	19.80
Other platinum metals	1.40	1.40	1.30
<b>China <sup>e</sup></b>			
Platinum	1.40	1.40	1.40
Palladium	0.70	0.70	0.70
<b>Russia</b>			
Platinum	22.00	20.80	22.50
Palladium	81.30	75.50	86.30
Other platinum metals	2.80	2.50	2.60
<b>South Africa</b>			
Platinum	93.99	139.13	133.24
Palladium	58.41	82.69	76.27
Other platinum metals	36.04	53.70	54.14
<b>USA</b>			
Platinum	3.66	3.67	3.90 <sup>e</sup>
Palladium	12.40	12.50	13.20 <sup>e</sup>
<b>Zimbabwe</b>			
Platinum	12.48	12.56	15.11
Palladium	10.14	10.06	12.22
Other platinum metals	2.67	2.61	3.09
<b>Other countries</b>			
(Platinum Group Metals)	3.93	3.33	3.88

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Potash  
(By Principal Countries)**

(In '000 tonnes of K<sub>2</sub>O content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>42000</b>	<b>40000</b>	<b>37800</b>
Belarus	6340	6468	6180
Canada (Chloride)	11345	11506	10208
Chile (Chloride)	1108	1119	1237
China <sup>e</sup>	6110	6200	6200
Germany (Potassic salts)	3178	3110	2751
Israel (Chloride)	2213	950	1457
Jordan	1276	1437	1222
Russia (Chloride)	7402	6954	6588
USA (Potassic salts)	850	740	520 <sup>e</sup>
Other countries	1775	1551	1404

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Rare Earth Oxides  
(By Principal Countries)**

Country	(In tonnes )		
	2014	2015	2016
Australia	3965	8799	12630
China <sup>e a</sup>	105000	105000	105000
Malaysia	292	365	208
Russia	2134	2312	3063
USA	3240	3540	0
Vietnam <sup>e</sup>	100	100	100

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a :- Includes production from iron ore extraction, bastnasite concentrates and ion absorption clays.

**World Production of Refined Selenium  
(By Principal Countries)**

(In tonnes )			
Country	2014	2015	2016
Belgium <sup>e</sup>	200	200	200
Canada	154	154	176
Chile	41	50 <sup>e</sup>	50 <sup>e</sup>
China	670 <sup>e</sup>	720	750
Finland	94	93	104
Germany <sup>e</sup>	700	790	790
Japan	782	772	753
Kazakhstan <sup>e</sup>	130	130	130
Mexico	120	99	126
Peru	49	40	40 <sup>e</sup>
Philippines <sup>e</sup>	70	70	70
Poland	90	87	82
Russia	131	143	197
USA <sup>e</sup>	160	90	122
Other countries	76	76	76

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Rutile<sup>1</sup>**  
**(By Principal Countries)**

(In '000 tonnes)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>800</b>	<b>800</b>	<b>700</b>
<b>(wt. of concentrates)</b>			
Australia	341	295	244
India	16	16 <sup>e</sup>	16 <sup>e</sup>
Kenya	52	79	88
Sierra Leone	115	126	149
South Africa <sup>e</sup>	133	131	130
Ukraine <sup>e</sup>	100	100	100
Other countries	24	15	21

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

1:- The figures in this table refer to gross tonnage of titanium concentrates.

e:- Estimated

**World Mine Production of Silver  
(By Principal Countries)**

(In tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>27477</b>	<b>27839</b>	<b>27461</b>
Argentina	905	1079	933
Australia	1847	1430	1418
Bolivia	1345	1306	1353
Canada	495	384	405
Chile	1572	1504	1501
China	3673	3421	3496
Guatemala	858	863	838
India	328	426	461
Kazakhstan	989	1309	1176
Mexico	5766	5955	5409
Peru	3778	4102	4375
Poland	1384	1407	1482
Russia <sup>a</sup>	1434	1580	1449
Sweden	383	480	499
USA	1184	1090	1100 <sup>c</sup>
Other countries	1536	1502	1565

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

a :- Smelter and/or refinery production

**World Production of Sand & Gravel<sup>e</sup>**  
**(By Principal Countries)**

	(In '000 tonnes )		
Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>196000</b>	<b>189000</b>	<b>180000</b>
Australia	5500	6000	3000
Canada	1690	1700	2100
Chile	1360	1250	-
Czech Republic	1270	1270	-
Finland	2400	2400	-
France	8750	8750	8800
Germany	7500	7500	7500
India	3430	3400	8000
Italy	13900	13900	13900
Japan	3000	3000	2900
Malaysia	1240	1200	10400
Mexico	3590	3600	1700
Moldova	3500	3800	-
Norway	1000	1000	-
Poland	2300	2300	2700
Saudi Arabia	1400	1260	-
South Africa	2110	2300	1900
Spain	3400	3400	6300
Turkey	7970	8000	8000
UK	4000	4000	4000
USA	110000	103000	77700
Other countries	6030	6000	20000

Source: Mineral Commodity Summaries, 2017 & 2018, USGS.  
<https://minerals.usgs.gov/minerals/pubs/mcs>

e : Estimated

- :- NA

**World Production of Sulphur & Pyrites  
(By Principal Countries)**

(In '000 tonnes of sulphur content )

Country	2014	2015	2016
<b>World Total (Sulphur) (rounded)</b>	<b>75700</b>	<b>75100</b>	<b>75300</b>
<b>(Pyrites) (rounded)</b>	8200	8200	8000
Brazil (Sulphur)	527	530 <sup>e</sup>	531 <sup>e</sup>
Brazil (Pyrites)	19	20 <sup>e</sup>	20 <sup>e</sup>
Canada (Sulphur) <sup>a b</sup>	5842	5745	5317
China (Sulphur) <sup>e</sup>	12500	12500	12500
China (Pyrites) <sup>e</sup>	7700	7700	7700
Chile (Sulphur) <sup>b</sup>	1849	1488	1596
Finland (Sulphur) <sup>a b</sup>	466	479	480
Finland (Pyrites)	353	353	206
Germany (Sulphur) <sup>a c</sup>	1146	1012	930
India (Sulphur) <sup>a b e</sup>	2700	2700	2700
Iran (Sulphur) <sup>d</sup>	2100	2200	2200 <sup>e</sup>
Italy (Sulphur) <sup>a d</sup>	740	740	740 <sup>e</sup>
Japan (Sulphur) <sup>a b</sup>	3442	3363	3518
Jordan (Sulphur) <sup>a e</sup>	490	490	490
Kazakhstan (Sulphur) <sup>a b</sup>	3069	3119	3140
Korea, Rep. of (Sulphur) <sup>a b</sup>	2278	2528	3078
Mexico (Sulphur) <sup>a b</sup>	1549	1414	1229
Netherlands (Sulphur) <sup>a b e</sup>	530	507	512
Peru (Sulphur) <sup>d e</sup>	556	556	556
Poland (Sulphur) <sup>a b e</sup>	890	931	925
Qatar (Sulphur) <sup>a e</sup>	1754	1665	1667
Russia (Sulphur) <sup>a c e</sup>	7146	7156	7140
Russia (Pyrites) <sup>e</sup>	71	71	71
Spain (Sulphur) <sup>a b e</sup>	1054	1054	1054
Saudi Arabia (Sulphur) <sup>a e</sup>	4400	4400	4400
South Africa (Sulphur) <sup>a b e</sup>	250	277	281
Turkey (Pyrites)	43	22	25 <sup>e</sup>
Turkmenistan (Sulphur) <sup>a e</sup>	410	410	410
UAE (Sulphur) <sup>a e</sup>	2530	2530	2530
USA (Sulphur) <sup>a b</sup>	9637	9536	9780
Venezuela (Sulphur) <sup>a e</sup>	420	420	420
Other countries(Sulphur)	7425	7350	7176

Source: World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e- Estimated, a: From petroleum refining and/or natural gas

b: From metal sulphide processing, c: Other, d: Sulphur, all forms



**World Production of Talc  
(By Principal Countries)**

Country	(In '000 tonnes)		
	2014	2015	2016
<b>World Total (rounded)</b>	<b>6683</b>	<b>6174</b>	<b>6216</b>
Argentina <sup>e b</sup>	25	25	25
Australia <sup>e</sup>	115	80	111
Austria	131	122	123
Brazil <sup>b</sup>	644	650 <sup>e</sup>	650 <sup>e</sup>
Canada	81	181	217
China <sup>e</sup>	2100	2200	2200
Egypt	31	24	20 <sup>e</sup>
Finland	381	332	346
France	350	350 <sup>e</sup>	370 <sup>e</sup>
India	774	770 <sup>e</sup>	770 <sup>e</sup>
Iran	113	137	130 <sup>e</sup>
Italy <sup>e</sup>	165	165	165
Japan <sup>e</sup>	25	25	25
Korea, Dem. P.R. <sup>e</sup>	50	50	50
Mexico	752	20	20 <sup>e</sup>
Pakistan	89	116	125
Peru	29	27	12
Russia <sup>e</sup>	150	150	150
USA	608	687	660 <sup>e</sup>
Other countries	70	61	48

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

b:- Including talc, agalmatolite and pyrophyllite.

**World Production of Refined Tellurium  
(By Principal Countries)**

Country	(In tonnes )		
	2014	2015	2016
Canada	9	9	18
China	180 <sup>e</sup>	210	210
Japan	32	34	28
Russia	33	34	40
Sweden	31	33	39
USA <sup>e</sup>	50	50	50

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Mine Production of Tin**  
**(By Principal Countries)**

(In tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>356000</b>	<b>335000</b>	<b>306000</b>
Australia	6898	7158	6635
Bolivia	19791	20135	17460
Brazil	25534	18824	19000 <sup>e</sup>
Myanmar <sup>e</sup>	26000	43000	57000
China	158000	135000	97000
Congo, Dem. P. R.	4012	4567	6503
Indonesia	75170	71309	66358
Laos	782	692	1005
Malaysia	3777	4125	4123
Nigeria	2485	2298	3443
Peru	23105	19511	18789
Rwanda	4447	2884	2619
Vietnam	4833	4530	4579
Other countries	893	1018	1199

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Mine Production of Tungsten  
(By Principal Countries)**

(In tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>80900</b>	<b>88200</b>	<b>88700</b>
Austria	830	870	950
Bolivia	956	1116	848
Brazil <sup>c</sup>	510	500 <sup>e</sup>	500 <sup>e</sup>
Myanmar <sup>e d</sup>	140	90	110
Burundi	115	78	131
Canada	2689	2114	0
China	65360	72163	72163
Congo, Democratic Republic	10	65	93
Korea, Dem. P.R. <sup>e</sup>	70	70	50
Kyrgyzstan <sup>e</sup>	100	100	100
Peru	77	139	0
Portugal <sup>a</sup>	671	474	549
Russia	2659	2608	2600 <sup>e</sup>
Rwanda	1313	1081	1000 <sup>e</sup>
Spain	822	835	688
UK	0	195	923
Uzbekistan <sup>e</sup>	300	300	300
Vietnam	4134	5123	6357
Zimbabwe	0	200 <sup>e</sup>	1248
Other countries	171	91	134

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

a :- Wolframite and scheelite

d :- Including tungsten content of tin-wolframite concentrates.

c :- Mainly scheelite.

**World Mine Production of Vanadium**  
**(By Principal Countries)**

(In tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>72000</b>	<b>72000</b>	<b>74000</b>
Brazil	578	3254	4461
China <sup>e</sup>	45000	42000	42000
Kazakhstan <sup>e</sup>	1000	1000	1000
Russia	15125	16196	16886
South Africa <sup>e</sup>	10000	10000	10000

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Vermiculite  
(By Principal Countries)**

(In '000 tonnes)

Country	2014	2015	2016
Brazil	56	60 <sup>e</sup>	60 <sup>e</sup>
Bulgaria <sup>e</sup>	19	19	19
China <sup>e</sup>	15	15	15
India	19	23	7
Russia	10 <sup>e</sup>	8	12
South Africa	143	138	166
USA <sup>e</sup>	100	100	100
Zimbabwe	30	29	29 <sup>e</sup>
Other countries	12	10	12

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Production of Wollastonite  
(By Principal Countries)**

(In tonnes)

Country	2014	2015	2016
China <sup>e</sup>	1100000	1000000	950000
Finland <sup>e</sup>	10000	10000	10000
India	186524	175348	166186
Mexico	54579	57451	63683
Spain	15298	17700	13553
USA <sup>e</sup>	70000	70000	60000
Other countries	3000	5428	7797

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

**World Mine Production of Zinc  
(By Principal Countries)**

(In '000 tonnes of metal content )

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>13600</b>	<b>13400</b>	<b>12300</b>
Australia	1506	1610	884
Bolivia	475	442	487
Canada	352	290	322
China	5118	4750	4630
India	767	759	764
Kazakhstan	386	384	366
Mexico	660	787	661
Peru	1315	1421	1334
USA	832	825	780 <sup>e</sup>
Other countries	2235	2114	2095

Source:- World Mineral Production, 2012-16, BGS.

[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated



**World Production of Zirconium Minerals  
(By Principal Countries)**

(In '000 tonnes)

Country	2014	2015	2016
<b>World Total (rounded)</b>	<b>1323</b>	<b>1325</b>	<b>1368</b>
Australia	582	608	608
Brazil <sup>b</sup>	24	25 <sup>e</sup>	25 <sup>e</sup>
China <sup>e</sup>	34	34	34
India	19	10 <sup>e</sup>	5 <sup>e</sup>
Indonesia <sup>e</sup>	21	31	35
Kenya	40	26	35
Madagascar	27	9	12
Mozambique	51	52	68
Senegal	9	45	53
South Africa <sup>e</sup>	393	390	390
USA <sup>e</sup>	70	50	50
Ukraine <sup>e</sup>	35	35	35
Other countries	19	11	19

Source:- World Mineral Production, 2012-16, BGS.  
[www.bgs.ac.uk/mineralsuk/statistics](http://www.bgs.ac.uk/mineralsuk/statistics)

e:- Estimated

b :- Including caldasite rock containing zircon  
and baddeleyite.