BERYLLIUM STATISTICS¹ U.S. GEOLOGICAL SURVEY

 $[All\ values\ are\ in\ metric\ tons\ (t)\ beryllium\ content\ unless\ otherwise\ noted]$

Last modification: November 21, 2008

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	Mine	_		a. •	Apparent			World mine
Year	production	Imports	Exports	Stocks	consumption	(\$/t)	(98\$/t)	production
1935						249,000	2,960,000	16
1936	1	6			7	249,000	2,920,000	17
1937	3	7			7	220,000	2,500,000	15
1938	1	5			11	220,000	2,550,000	42
1939	3	17			18	220,000	2,590,000	36
1940	4	29			22	99,200	1,160,000	87
1941	6	97		80	44	99,200	1,100,000	164
1942	10	74		51	85	104,000	1,040,000	120
1943	13	176		38	111	99,200	935,000	218
1944	14	113		5	79	99,200	919,000	118
1945	1	44		3	63	99,200	898,000	39
1946	4	43		32	37	99,200	829,000	68
1947	5	28		14	63	210,000	1,530,000	57
1948	4	62		38	71	210,000	1,420,000	99
1949	17	138		84	37	210,000	1,430,000	183
1950	20	176		95	109	210,000	1,420,000	269
1951	18	157		51	123	210,000	1,310,000	243
1952	19	217		90	126	210,000	1,290,000	301
	27			181	97			298
1953		290				158,000	962,000	
1954	24	211		149	71	158,000	955,000	279
1955	18	219		105	140	158,000	959,000	323
1956	16	449		168	158	158,000	945,000	468
1957	19	265		264	156	158,000	914,000	410
1958	18	167		164	218	158,000	889,000	279
1959	15	292		140	297	158,000	883,000	406
1960	18	325		99	352	150,000	850,000	446
1961	41	309		177	341	120,000	649,000	468
1962	35	310		198	282	120,000	643,000	399
1963	27	227		315	288	120,000	634,000	265
1964		201	77	261	161	120,000	626,000	178
1965		288	54	259	212	120,000	616,000	222
1966		83	28	284	219	120,000	599,000	165
1967		351	34	297	257	120,000	581,000	197
1968	6	145	43	234	335	120,000	558,000	263
1969		235	14	215	308	130,000	587,000	322
1970		182	18	207	345	130,000	556,000	249
1971		146	19	229	376	130,000	532,000	210
1972		122	44	251	282	130,000	516,000	157
1973		59	50	214	316	110,000	397,000	144
1974		55	65	161	190	132,000	436,000	126
1975		64	17	129	160	131,000	397,000	119
1976		39	52	144	46		376,000	93
						131,000		
1977		31	73	129	61	212,000	569,000	103
1978		38	37	49	246	227,000	568,000	105
1979	250	39	33	30	275	227,000	510,000	96
1980	270	67	26	49	291	265,000	523,000	373
1981	266	79	35	89	275	326,000	585,000	385
1982	198	104	61	194	136	366,000	618,000	327
1983	242	88	17	255	253	392,000	642,000	366
1984	219	80	18	205	302	392,000	616,000	359
1985	209	111	54	181	263	432,000	655,000	326

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Last modification: November 21, 2008

	Mine				Apparent	Unit value	Unit value	World mine
Year	production	Imports	Exports	Stocks	consumption	(\$/t)	(98\$/t)	production
1986	237	73	36	177	278	450,000	669,000	356
1987	220	133	77	164	289	505,000	724,000	345
1988	212	47	37	158	228	538,000	741,000	332
1989	184	38	34	153	187	575,000	756,000	301
1990	182	25	45	119	175	593,000	740,000	284
1991	174	55	33	112	203	617,000	739,000	263
1992	193	6	41	111	159	617,000	717,000	278
1993	198	8	20	114	183	650,000	734,000	243
1994	173	53	29	113	198	650,000	715,000	218
1995	202	32	61	162	198	849,000	908,000	247
1996	211	20	57	139	197	849,000	882,000	255
1997	231	20	40	110	316	849,000	862,000	276
1998	243	50	60	80	320	849,000	849,000	289
1999	200	20	40	20	385	849,000	830,000	248
2001	100	242	150	100	297	165,000	152,000	120
2002	80	141	165	90	156	271,000	246,000	101
2003	85	163	269	45	57	249,000	221,000	107
2004	90	85	217	40	69	276,000	238,000	111
2005	110	93	201	35	84	218,000	182,000	137
2006	155	62	135	50	226	282,000	228,000	179
2007	152	72	101	100	109	317,000	249,000	179

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Data are calculated, estimated, or reported. See notes for more information.

Beryllium Worksheet Notes

Data Sources

Sources of data for the beryllium worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB); Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS); Mineral Facts and Problems (MFP); and Metal Prices in the United States through 1998 (MP98) and its predecessor, Metal Prices in the United States through 1991 (MP91). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data are not available.

Mine Production

Mine production data represent the beryllium content of beryllium-bearing ores shipped from mines within the United States. Data are based on a beryllium metal equivalent of 4 percent beryllium in beryl and/or bertrandite ores, calculated as equivalent to beryl ore containing 11 percent BeO. Data are not available prior to the year 1936 and are withheld to avoid disclosing company proprietary data for the years 1964–67 and 1969–79. Data are from the MYB.

Imports

Data for the years 1936–2000 represent the estimated beryllium content of beryllium ores and/or metal imported into the United States. Import data are not available prior to the year 1936. Data for the years 2001 to the most recent represent the estimated beryllium content of ores and concentrates, oxide and hydroxide, unwrought metal (including powders), beryllium articles, waste and scrap, and beryllium-copper master alloy. For the years 1936–63, data are from the MYB; 1964-83, data are from the MFP; for the years 1984 to the most recent, data are from the MCS.

Exports

Data for the years 1942–2000 represent the estimated beryllium content of various beryllium materials exported from the United States. Export data are not available prior to the year 1942. Data available for the years 1942–63 include the combined gross weights of several materials; reliable estimates of beryllium contents could not be made. Data for the years 2001 to the most recent represent the estimated beryllium content of unwrought metal (including powders), beryllium articles, and waste and scrap. For the years 1964–79, data are from the MFP; for the years 1980 to the most recent, data are from the MCS.

Stocks

Data are industry stocks, and represent the beryllium content of beryl and/or bertrandite held in consumer and/or producer inventories as of end of year, December 31. Stock data are not available prior to the year 1941. Data for the years 1941 to the most recent are from the MYB, except for the year 1966, which is from the CDS.

Apparent Consumption

All data are in terms of beryllium content. Consumption data for the year 1935 is not available. Data for the years 1936–41 are estimated consumption of beryl ore; for the years 1942–68, data are reported consumption of beryl ore; for the years 1969–73, data are reported consumption of beryl and bertrandite ores; for the years 1974 to the most recent, data represent the apparent consumption of various beryllium materials. Data for the years 1936–73 are from the MYB; for the years 1974 to the most recent, data are from the MCS.

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of beryllium apparent consumption. Unit value data are estimated by using the yearend beryllium metal market price as reported in MP91 for the years 1935–46; MP98 for the years 1947–98; the MYB for the year 1999; and the MCS for the year 2000. For the years 2001 to the most recent, estimation of the beryllium unit value is calculated on an annual basis from the U.S. dollar (expressed as current dollars) value of imports of beryllium-copper master alloy divided by the estimated beryllium content of those imports, which is reported in the MCS.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Mine Production

Data represent the estimated beryllium content of beryllium-bearing ores produced from mines throughout the world. World mine production data are based on a beryllium metal equivalent of 4 percent Be in beryl and bertrandite ores, reported as equivalent to beryl ore containing 11 percent BeO. Data are not available prior to the year 1935. U.S. production data for the years 1964–67 and 1969–79 are not available and not included in the total. Data are from the MYB.

References

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