BERYLLIUM STATISTICS¹ U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) beryllium content unless otherwise noted] Last modification: November 5, 2012

	2.61		Last mo	unication	November 5,		T T •4 1	***
	Mine		-	a	Apparent	Unit value	Unit value	World mine
Year	production	Imports	Exports	Stocks	consumption	(\$/t)	(98\$/t)	production
1935	NA	NA	NA	NA		249,000	2,960,000	16
1936	1	6	NA	NA	7	249,000	2,920,000	17
1937	3	7	NA	NA	7	220,000	2,500,000	15
1938	1	5	NA	NA	11	220,000	2,550,000	42
1939	3	17	NA	NA	18	220,000	2,590,000	36
1940	4	29	NA	NA	22	99,200	1,160,000	87
1941	6	97	NA	80	44	99,200	1,100,000	164
1942	10	74	NA	51	85	104,000	1,040,000	120
1943	13	176	NA	38	111	99,200	935,000	218
1944	14	113	NA	5	79	99,200	919,000	118
1945	1	44	NA	3	63	99,200	898,000	39
1946	4	43	NA	32	37	99,200	829,000	68
1947	5	28	NA	14	63	210,000	1,530,000	57
1948	4	62	NA	38	71	210,000	1,420,000	99
1949	17	138	NA	84	37	210,000	1,430,000	183
1950	20	176	NA	95	109	210,000	1,420,000	269
1951	18	157	NA	51	123	210,000	1,310,000	243
1952	19	217	NA	90	126	210,000	1,290,000	301
1953	27	290	NA	181	97	158,000	962,000	298
1954	24	211	NA	149	71	158,000	955,000	279
1955	18	219	NA	105	140	158,000	959,000	323
1956	16	449	NA	168	158	158.000	945.000	468
1957	19	265	NA	264	156	158,000	914.000	410
1958	18	167	NA	164	218	158,000	889.000	279
1959	15	292	NA	140	297	158.000	883.000	406
1960	18	325	NA	99	352	150.000	850.000	446
1961	41	309	NA	177	341	120,000	649,000	468
1962	35	310	NA	198	282	120,000	643.000	399
1963	27	227	NA	315	288	120,000	634.000	265
1964	W	201	77	261	161	120,000	626.000	178
1965	W	288	54	259	212	120,000	616,000	222
1966	W	83	28	284	219	120,000	599,000	165
1967	W	351	34	297	257	120,000	581,000	197
1968	6	145	43	234	335	120,000	558,000	263
1969	W	235	14	215	308	130,000	587,000	322
1970	W	182	18	207	345	130,000	556,000	249
1971	W	146	10	229	376	130,000	532,000	210
1972	W	122	44	251	282	130,000	516,000	157
1973	W	59	50	231	316	110,000	397,000	144
1974	W	55	65	161	190	132,000	436,000	126
1975	W	64	17	129	150	131,000	397.000	110
1976	W	30	52	144	46	131,000	376,000	03
1077	W	31	73	174		212,000	569,000	103
1079	vv \\\\	20	13	129	246	212,000	568 000	105
1970	¥¥ 13.7	20	22	49	240	227,000	510,000	103
19/9	270	59 67	33 26		273	265 000	572.000	90 272
1980	270	70	20 25	49	291	203,000	525,000	3/3 205
1981	∠00 109	104	23	104	2/3	266,000	619,000	202
1982	198	104	17	194	130	202,000	642,000	327
1983	242	88	10	205	203	202,000	616,000	300
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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	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
2000	180	20	35	115	300	928,000	878,000	226
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	250,000	221,000	107
2004	90	85	217	40	69	275,000	237,000	111
2005	110	93	201	35	84	218,000	182,000	138
2006	155	62	135	50	226	282,000	228,000	174
2007	150	72	101	99	100	317,000	249,000	174
2008	175	70	112	60	218	350,000	265,000	197
2009	120	24	23	30	170	341,000	259,000	144
2010	180	271	39	15	456	502,000	375,000	204
2011	235	92	21	10	333	448,000	325,000	261

Last modification: November 5, 2012

NA Not available. W Withheld to avoid disclosing company proprietary data.

¹Compiled by D.A. Buckingham (retired), L.D. Cunningham (retired), K.B. Shedd, and B.W. Jaskula. 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.

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 1936 and are withheld to avoid disclosing company proprietary data for 1964–67 and 1969–79. Data are from the MYB.

Imports

Data for 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 1936. Data for 2001 to the most recent year 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 1936–63, data are from the MYB; 1964-83, data are from the MFP; for 1984 to the most recent year, data are from the MCS.

Exports

Data for 1942–2000 represent the estimated beryllium content of various beryllium materials exported from the United States. Export data are not available prior to 1942. Data available for 1942–63 include the combined gross weights of several materials; reliable estimates of beryllium contents could not be made. Data for 2001 to the most recent year represent the estimated beryllium content of unwrought metal (including powders), beryllium articles, and waste and scrap. For 1964–79, data are from the MFP; for 1980 to the most recent year, 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 1941. Data for 1941 to the most recent year are from the MYB, except for 1966, which is from the CDS.

Apparent Consumption

All data are in terms of beryllium content. Consumption data for 1935 is not available. Data for 1936–41 are estimated consumption of beryl ore; for 1942–68, data are reported consumption of beryl ore; for 1969–73, data are reported consumption of beryl and bertrandite ores; for 1974 to the most recent year, data represent the apparent consumption of various beryllium materials. Data for 1936–73 are from the MYB; for 1974 to the most recent year, 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 1935–46; MP98 for 1947–98; the MYB for 1999; and the MCS for 2000. For 2001 to the most recent year, 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 1935. U.S. production data for 1964–67 and 1969–79 are not available and not included in the total. Data are from the MYB.

References

U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.

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Recommended Citation Format:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, accessed [date], at http://pubs.usgs.gov/ds/2005/140/.

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