

BROMINE STATISTICS¹
U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) bromine content unless otherwise noted]

Last modification: December 4, 2012

Year	Production	Imports	Exports	Apparent consumption	Unit value \$/t	Unit value 98\$/t	World production
1900	237	NA	NA	237	639	13,000	NA
1901	250	NA	NA	250	617	12,000	NA
1902	233	NA	NA	233	551	10,000	NA
1903	271	NA	NA	271	617	11,000	NA
1904	407	NA	NA	407	661	12,000	NA
1905	541	NA	NA	541	331	6,000	NA
1906	582	NA	NA	582	282	5,100	NA
1907	626	NA	NA	626	309	5,400	NA
1908	345	NA	NA	345	220	4,000	NA
1909	258	NA	NA	258	220	4,000	NA
1910	111	NA	NA	111	287	5,000	NA
1911	296	NA	NA	296	375	6,600	NA
1912	294	NA	NA	294	507	8,600	NA
1913	260	NA	NA	260	441	7,260	NA
1914	262	NA	NA	262	772	12,600	NA
1915	388	NA	NA	388	2,200	35,600	NA
1916	330	NA	NA	330	2,890	43,200	NA
1917	406	NA	NA	406	1,210	15,400	NA
1918	783	NA	NA	783	1,230	13,300	NA
1919	841	NA	NA	841	1,480	13,900	NA
1920	526	NA	NA	526	1,410	11,500	NA
1921	323	0.136	NA	323	529	4,820	NA
1922	456	25.8	NA	482	331	3,210	NA
1923	382	58.1	NA	440	375	3,570	NA
1924	923	570	NA	1,490	639	6,100	NA
1925	710	188	NA	898	683	6,360	NA
1926	565	209	NA	774	750	6,900	NA
1927	797	185	NA	982	705	6,610	NA
1928	982	126	NA	1,110	661	6,310	NA
1929	2,910	186	NA	3,100	595	5,670	NA
1930	3,840	1,200	NA	5,040	551	5,380	NA
1931	4,050	638	NA	4,690	463	4,960	NA
1932	2,600	384	NA	2,980	463	5,510	NA
1933	4,600	118	NA	4,720	441	5,530	NA
1934	6,960	252	NA	7,210	463	5,630	NA
1935	7,450	189	NA	7,640	463	5,510	NA
1936	9,350	518	NA	9,870	441	5,170	NA
1937	11,900	385	NA	12,300	441	4,990	NA
1938	14,700	465	NA	15,100	441	5,100	NA
1939	17,200	1.26	NA	17,200	441	5,170	NA
1940	26,900	1.50	NA	26,900	441	5,130	NA
1941	31,000	NA	NA	31,000	375	4,160	NA
1942	29,900	NA	NA	29,900	463	4,630	NA
1943	42,700	NA	NA	42,700	441	4,160	NA
1944	46,300	NA	NA	46,300	419	3,880	NA
1945	36,200	NA	NA	36,200	419	3,790	NA
1946	19,400	NA	NA	19,400	441	3,690	NA
1947	35,500	0.0594	813	34,600	419	3,060	NA
1948	34,500	0.0463	478	34,000	419	2,830	NA
1949	40,200	0.040	420	39,800	397	2,720	NA
1950	44,700	0.0485	395	44,300	419	2,830	NA

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1951	58,800	1.36	707	58,800	441	2,760	NA
1952	70,900	0.860	1,270	69,600	551	3,390	NA
1953	74,500	0.206	1,550	72,900	573	3,500	NA
1954	85,000	29.8	2,310	82,700	522	3,160	NA
1955	83,700	0.201	1,660	82,000	514	3,130	NA
1956	89,200	0.887	2,770	86,500	477	2,860	NA
1957	87,100	0.459	4,770	82,300	499	2,890	NA
1958	80,000	4.15	4,540	75,500	485	2,730	NA
1959	88,700	12.8	4,170	84,500	463	2,600	NA
1960	79,400	122	4,650	74,900	430	2,370	NA
1961	82,000	103	5,040	77,100	413	2,250	92,300
1962	86,500	151	4,000	82,700	385	2,080	89,900
1963	92,200	134	5,630	86,700	353	1,880	125,000
1964	108,000	0.335	7,730	100,000	349	1,840	121,000
1965	125,000	13.1	4,540	120,000	444	2,300	142,000
1966	125,000	220	3,630	121,000	438	2,210	144,000
1967	132,000	94.5	7,030	126,000	429	2,100	163,000
1968	138,000	5.86	3,180	135,000	415	1,940	173,000
1969	152,000	22.5	2,310	150,000	419	1,860	178,000
1970	159,000	65.4	3,640	155,000	382	1,600	210,000
1971	161,000	5.19	9,070	152,000	383	1,540	219,000
1972	175,000	20.9	13,600	162,000	363	1,420	237,000
1973	190,000	25.9	18,700	171,000	354	1,300	278,000
1974	196,000	9.98	31,500	165,000	601	1,990	292,000
1975	185,000	22.2	29,600	155,000	610	1,850	278,000
1976	209,000	200	30,400	178,000	494	1,420	297,000
1977	197,000	359	27,000	170,000	477	1,280	307,000
1978	203,000	770	42,800	161,000	468	1,170	309,000
1979	226,000	1,460	39,800	187,000	486	1,090	346,000
1980	172,000	946	35,600	137,000	548	1,080	295,000
1981	171,000	2,540	25,400	148,000	486	871	353,000
1982	182,000	2,860	21,400	163,000	595	1,010	381,000
1983	168,000	7,030	23,600	151,000	595	974	363,000
1984	175,000	7,300	20,500	161,000	744	1,170	388,000
1985	145,000	7,550	23,500	129,000	744	1,130	379,000
1986	141,000	8,670	10,400	139,000	744	1,110	371,000
1987	152,000	10,500	18,600	144,000	772	1,110	384,000
1988	163,000	22,200	11,800	173,000	981	1,350	405,000
1989	175,000	30,000	29,000	176,000	794	1,040	420,000
1990	177,000	20,200	14,400	183,000	741	924	440,000
1991	170,000	23,900	14,600	179,000	732	876	400,000
1992	171,000	15,500	16,900	170,000	733	852	370,000
1993	177,000	19,200	13,400	183,000	695	784	390,000
1994	195,000	23,500	11,500	207,000	795	874	410,000
1995	218,000	9,700	11,100	217,000	853	912	430,000
1996	227,000	17,100	11,100	233,000	660	686	450,000
1997	247,000	15,300	9,050	253,000	802	814	470,000
1998	230,000	13,000	8,550	234,000	700	700	510,000
1999	239,000	9,100	8,000	240,000	870	851	530,000
2000	228,000	20,000	7,740	240,000	900	852	542,000
2001	212,000	16,200	10,500	214,000	670	617	540,000

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2002	222,000	6,720	12,800	216,000	992	899	503,000
2003	216,000	48,000	8,300	256,000	717	635	494,000
2004	222,000	62,000	9,300	274,000	860	742	577,000
2005	226,000	59,100	9,740	277,000	740	618	654,000
2006	243,000	43,100	12,400	275,000	1,390	1,120	671,000
2007	W	32,200	8,560	W	NA	NA	415,000
2008	W	41,200	9,640	W	NA	NA	415,000
2009	W	36,000	6,130	W	NA	NA	367,000
2010	W	45,400	8,150	W	NA	NA	695,000
2011	W	47,100	7,150	W	NA	NA	683,000

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

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

Bromine Worksheet Notes

Data Sources

Sources of data for the bromine worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS); and Mineral Facts and Problems (1975, 1980, and 1985) (MFP). Years of publication and corresponding years of data coverage are listed in the References section below.

Production

Production is defined as bromine data that are reported as sold or used by primary producers. All data are in terms of contained bromine. Data are reported in the MR, MYB, and the MCS. Data for 2007 to the most recent year are withheld to avoid disclosing company proprietary data.

Imports

Data are reported as contained bromine in bromine compounds as imported into the United States. Data for 1900–20 and 1941–46 are not available. Contained bromine was calculated using the percentage of elemental bromine in each bromine compound. The amounts and types of bromine compound imports varied widely on an annual basis. For the “other bromine compounds not separately classified” category, contained bromine was calculated using the weighted average percentage of contained bromine in all the known imported bromine compounds. Data are totaled on a yearly basis. Data are reported in the MR and the MYB.

Exports

Data are reported as contained bromine in bromine compounds as exported from the United States. Export data were not published prior to 1947. Datum for 1951 is interpolated. Data for 1952–63 report only the gross weight of bromine compounds. Data for 1964 are reported in both gross weight and contained bromine. The percentage of contained bromine calculated for 1964 was used in estimating the contained bromine data for 1952–63. For 1964 to the most recent year, data are in terms of contained bromine. Data are in reported the MR, MYB, and the MFP.

Apparent Consumption

Bromine apparent consumption data were not published prior to 1950. For 1900 to the most recent year, apparent consumption is estimated using the following equation:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION (SOLD or USED)} + \text{IMPORTS} - \text{EXPORTS.}$$

Data are from the MR and the MYB, but may include some unpublished revisions made by the USGS bromine commodity specialist. All data are in terms of contained bromine. Data for 2007 to the most recent year are withheld to avoid disclosing company proprietary data.

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of bromine apparent consumption. This value is estimated using the published bromine market prices. For 1900–51, the average bulk bromine producer value, free on board (f.o.b.) plant is used. Data are from the MR and the MYB. For 1952–53, the bulk elemental bromine producer value, f.o.b. plant is used. Data are from the MR and the MYB. For 1954–83, the average annual U.S. bromine producer price is used. Data are from the MFP (1975, 1980, and 1985). For 1984–2006, the purified bulk bromine price is used. Data for 2007 to the most recent year are not available. Data are from 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 Production

Data are world mine production in terms of elemental bromine. Data are not available prior to 1961. Data are reported in the CDS and the MCS.

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