BROMINE STATISTICS¹ U.S. GEOLOGICAL SURVEY [All values are in metric tons (t) bromine unless otherwise noted]

Last modification: October 28, 2008

| | | Li | asi moun | ication: Octo | | TT •/ 1 | *** |
|------|----------------|------------|----------|---------------|------------|------------|------------|
| | | . . | . | Apparent | Unit value | Unit value | |
| | | Imports | Exports | consumption | \$/t | 98\$/t | production |
| 1900 | 237 | | | 237 | 639 | 13,000 | |
| 1901 | 250 | | | 250 | 617 | 12,000 | |
| 1902 | 233 | | | 233 | 551 | 10,000 | |
| 1903 | 271 | | | 271 | 617 | 11,000 | |
| 1904 | 407 | | | 407 | 661 | 12,000 | |
| 1905 | 541 | | | 541 | 331 | 6,000 | |
| 1906 | 582 | | | 582 | 282 | 5,100 | |
| 1907 | 626 | | | 626 | 309 | 5,400 | |
| 1908 | 345 | | | 345 | 220 | 4,000 | |
| 1909 | 258 | | | 258 | 220 | 4,000 | |
| 1910 | 111 | | | 111 | 287 | 5,000 | |
| 1911 | 296 | | | 296 | 375 | 6,600 | |
| 1912 | 294 | | | 294 | 507 | 8,600 | |
| 1913 | 260 | | | 260 | 441 | 7,260 | |
| 1914 | 262 | | | 262 | 772 | 12,600 | |
| 1915 | 388 | | | 388 | | 35,600 | |
| 1916 | 330 | | | 330 | 2,890 | 43,200 | |
| 1917 | 406 | | | 406 | | 15,400 | |
| 1918 | 783 | | | 783 | 1,230 | 13,300 | |
| 1919 | 841 | | | 841 | 1,480 | 13,900 | |
| 1920 | 526 | | | 526 | | 11,500 | |
| 1921 | 323 | 0.136 | | 323 | 529 | 4,820 | |
| 1922 | 456 | | | 482 | 331 | 3,210 | |
| 1923 | 382 | 58.1 | | 440 | 375 | 3,570 | |
| 1924 | 923 | | | 1,490 | 639 | 6,100 | |
| 1925 | 710 | | | 898 | | 6,360 | |
| 1926 | 565 | 209 | | 774 | 750 | 6,900 | |
| 1927 | 797 | 185 | | 982 | 705 | 6,610 | |
| 1928 | 982 | 105 | | 1,110 | | 6,310 | |
| 1929 | 2,910 | | | 3,100 | | 5,670 | |
| 1930 | 3,840 | | | 5,040 | | 5,380 | |
| 1930 | 4,050 | 638 | | 4,690 | 463 | 4,960 | |
| 1931 | 2,600 | | | 2,980 | | 5,510 | |
| 1932 | | | | | | 5,530 | |
| 1934 | 4,600 6,960 | | | 4,720 | | 5,630 | |
| 1934 | 7,450 | | | 7,210 | | 5,510 | |
| 1935 | 9,350 | | | 9,870 | | 5,170 | |
| 1930 | · · · · · · | | | / | | 4,990 | |
| 1937 | 11,900 | | | 12,300 | | | |
| | 14,700 | | | 15,100 | | 5,100 | |
| 1939 | 17,200 | | | 17,200 | | 5,170 | |
| 1940 | 26,900 | | | 26,900 | | 5,130 | |
| 1941 | 31,000 | | | 31,000 | | 4,160 | |
| 1942 | 29,900 | | | 29,900 | | 4,630 | |
| 1943 | 42,700 | | | 42,700 | | 4,160 | |
| 1944 | 46,300 | | | 46,300 | | 3,880 | |
| 1945 | 36,200 | | | 36,200 | | , | |
| 1946 | 19,400 | | | 19,400 | | 3,690 | |
| 1947 | 35,500 | | 813 | 34,600 | | 3,060 | |
| 1948 | 34,500 | | 478 | 34,000 | | , | |
| 1949 | 40,200 | | | 39,800 | | 2,720 | |
| 1950 | 44,700 | 0.0485 | 395 | 44,300 | 419 | 2,830 | |

BROMINE STATISTICS¹ **U.S. GEOLOGICAL SURVEY** [All values are in metric tons (t) bromine unless otherwise noted] Last modification: October 28, 2008

| Last modification: October 28, 2008 | | | | | | | | |
|-------------------------------------|------------|---------|---------|-------------|------------|------------|------------|--|
| | | | | Apparent | Unit value | Unit value | World | |
| Year | Production | Imports | Exports | consumption | \$/t | 98\$/t | production | |
| 1951 | 58,800 | 1.36 | 707 | 58,800 | 441 | 2,760 | | |
| 1952 | 70,900 | 0.860 | 1,270 | 69,600 | 551 | 3,390 | | |
| 1953 | 74,500 | 0.206 | 1,550 | 72,900 | 573 | 3,500 | | |
| 1954 | 85,000 | 29.8 | 2,310 | 82,700 | 522 | 3,160 | | |
| 1955 | 83,700 | 0.201 | 1,660 | 82,000 | 514 | 3,130 | | |
| 1956 | 89,200 | 0.887 | 2,770 | 86,500 | 477 | 2,860 | | |
| 1957 | 87,100 | 0.459 | 4,770 | 82,300 | 499 | 2,890 | | |
| 1958 | 80,000 | 4.15 | 4,540 | 75,500 | 485 | 2,730 | | |
| 1959 | 88,700 | 12.8 | 4,170 | 84,500 | 463 | 2,600 | | |
| 1960 | 79,400 | 122 | 4,650 | 74,900 | 430 | 2,370 | | |
| 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 | | | 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 | | 353,000 | |
| 1982 | 182,000 | 2,860 | | 163,000 | 595 | | 381,000 | |
| 1983 | 168,000 | 7,030 | | | 595 | | , , | |
| 1984 | 175,000 | | | | 744 | , | 388,000 | |
| 1985 | 145,000 | 7,550 | 23,500 | 129,000 | 744 | | 379,000 | |
| 1986 | 141,000 | | | 139,000 | 744 | , | | |
| 1987 | 152,000 | , | | 144,000 | 772 | | 384,000 | |
| 1988 | 163,000 | | | 173,000 | 981 | 1,350 | 405,000 | |
| 1989 | 175,000 | | | 176,000 | 794 | | 420,000 | |
| 1990 | 177,000 | | | 183,000 | 741 | 924 | 440,000 | |
| 1991 | 170,000 | | | 179,000 | 732 | | | |
| 1992 | 171,000 | | | 170,000 | 733 | | 370,000 | |
| 1993 | 177,000 | | | 183,000 | 695 | | 390,000 | |
| 1994 | 195,000 | | | 207,000 | 795 | | 410,000 | |
| 1995 | 218,000 | | | 217,000 | 853 | | 430,000 | |
| 1996 | 227,000 | | | 233,000 | 660 | | 450,000 | |
| 1997 | 247,000 | | | 253,000 | 802 | | 470,000 | |
| 1998 | 230,000 | | | 234,000 | 700 | | 510,000 | |
| 1999 | 239,000 | | | 240,000 | 870 | | 530,000 | |
| 2000 | 228,000 | | | 240,000 | 900 | | 542,000 | |
| 2001 | 212,000 | 16,200 | 10,500 | 214,000 | 670 | 617 | 540,000 | |

BROMINE STATISTICS¹ U.S. GEOLOGICAL SURVEY [All values are in metric tons (t) bromine unless otherwise noted]

| | | | | Apparent | Unit value | Unit value | World |
|------|------------|---------|---------|-------------|------------|------------|------------|
| Year | Production | Imports | Exports | consumption | \$/t | 98\$/t | production |
| 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 | 565,000 |
| 2005 | 226,000 | 60,000 | 9,700 | 277,000 | 740 | 618 | 631,000 |
| 2006 | 243,000 | 44,000 | 12,400 | 275,000 | 1,390 | 1,120 | 643,000 |
| 2007 | | 30,000 | 11,000 | | | | 387,000 |

Last modification: October 28, 2008

¹Compiled by D.A. Buckingham (retired), P.A. Lyday (retired), S.M. Jasinski, and L.E. Apodaca.

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. Blank cells in the worksheet indicate that data are not available.

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. Datum for 2007 was 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 the years 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 were 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 the year 1951 is interpolated. Data for the years 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 the years 1952–63. For the years 1964 to the most recent, 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 the years 1900 to the most recent, apparent consumption is estimated using the following equation:

APPARENT CONSUMPTION = PRODUCTION (SOLD or USED) + IMPORTS – EXPORTS.

Data are from the MR and the MYB, but may include some unpublished revisions made by the Commodity Specialist. All data are in terms of contained bromine. Datum for 2007 was 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 the years 1900–51, the average bulk bromine producer value, free on board (FOB) plant is used. Data are from the MR and the MYB. For the years 1952–53, the bulk elemental bromine producer value, FOB plant is used. Data are from the MR and the MYB. For the years 1954–83, the average annual U.S. bromine producer price is used. Data are from the MFP (1975, 1980, and 1985). For the years 1984 to the most recent, the purified bulk bromine price is used. Data are from the MCS.

Estimated 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, for the years prior to 1961. Data are reported in the CDS and the MCS.

References

- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933-96, Minerals Yearbook, 1932-94.
- U.S. Bureau of Mines, 1962-77, Commodity Data Summaries, 1962-77.
- U.S. Bureau of Mines, 1975, Mineral Facts and Problems, 1975 ed.: U.S. Bureau of Mines Bulletin 667.
- U.S. Bureau of Mines, 1978–95, Mineral Commodity Summaries, 1978–95.
- U.S. Bureau of Mines, 1980, Mineral Facts and Problems, 1980 ed.: U.S. Bureau of Mines Bulletin 671.
- U.S. Bureau of Mines, 1985, Mineral Facts and Problems, 1985 ed.: U.S. Bureau of Mines Bulletin 675.
- U.S. Geological Survey, 1901–27, Mineral Resources of the United States, 1900–23.

- U.S. Geological Survey, 1997–2008, Mineral Commodity Summaries, 1997–2008.
- U.S. Geological Survey, 1997–2008, Minerals Yearbook, v. I, 1995–2007.
- U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

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, available online at http://pubs.usgs.gov/ds/2005/140/. (Accessed [date].)

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