MAGNESIUM METAL STATISTICS¹ U.S. GEOLOGICAL SURVEY

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

Last modification: October 25, 2012

	Primary	Secondary			Government	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Apparent	Unit value	Unit value	World
Year	production	production	Imports	Exports	shipments	Stocks	consumption	(\$/t)	(98\$/t)	production
1915	39.7	NA	NA	NA	NA	NA	39.7	11,100	179,000	NA
1916	34.2	NA	NA	NA	NA	NA	34.2	9,100	136,000	NA
1917	52.5	NA	NA	NA	NA	NA	52.5	4,450	56,700	NA
1918	129	NA	5.40	NA	NA	NA	134	3,990	43,100	NA
1919	57.8	NA	6.00	NA	NA	NA	63.8	4,030	38,000	NA
1920	56.2	NA	13.00	NA	NA	NA	69.2	3,530	28,700	NA
1921	21.8	NA	18.00	NA	NA	NA	39.8	3,530	32,100	NA
1922	27.2	NA	83.00	NA	NA	NA	110	3,530	34,300	NA
1923	56.7	NA	6.00	NA	NA	NA	63.0	2,760	26,300	NA
1924	58.1	NA	4.00	NA	NA	NA	62.0	2,360	22,500	NA
1925	111	NA	4.00	NA	NA	NA	115	1,900	17,800	NA
1926	146	NA	5.00	NA	NA	NA	151	1,760	16,100	NA
1927	166	NA	3.00	NA	NA	NA	169	1,500	14,000	NA
1928	241	NA	5.00	2.00	NA	NA	244	1,210	11,500	NA
1929	412	NA	2.00	52.0	NA	NA	362	1,260	12,000	NA
1930	254	NA	3.00	38.0	NA	NA	219	1,060	10,400	NA
1931	263	NA	1.00	58.0	NA	NA	206	661	7,080	NA
1932	359	NA	0.424	77.0	NA	NA	283	639	7,610	NA
1933	651	NA	0.261	199	NA	NA	452	617	7,730	NA
1934	1,930	NA	0.300	291	NA	NA	1,640	573	6,970	NA
1935	1,920	NA	0.401	953	NA	NA	971	573	6,820	NA
1936	1,770	NA	1.00	390	NA	NA	1,380	573	6,720	NA
1937	2,060	NA	1.00	276	NA	NA	1,780	661	7,490	19,600
1938	2,920	NA	0	1,130	NA	NA	1,790	661	7,640	23,900
1939	3,040	NA	0	2,020	NA	NA	1,020	661	7,750	29,400
1940	5,680	NA	0	779	NA	NA	4,900	595	6,930	37,800
1941	14,800	14.0	0	1,410	NA	NA	13,400	507	5,620	59,800
1942	44,400	79.0	1.00	3,670	NA	NA	40,800	507	5,070	105,000
1943	167,000	136	0	36,700	NA	21,800	130,000	463	4,370	238,000
1944	143,000	190	55.0	22,000	NA	NA	121,000	463	4,290	218,000
1945	29,700	748	52.0	1,250	NA	NA	29,300	463	4,210	62,000
1946	4,820	1,100	219	278	NA	NA	5,860	463	3,860	24,000
1947	11,200	4,170	183	322	NA	NA	15,200	463	3,380	32,000
1948	9,080	3,800			NA				,	,
1949	10,500	2,670			NA	NA	14,900	463	· · · · · · · · · · · · · · · · · · ·	
1950	14,300	4,510	787	824	NA	NA	18,800	551	3,720	45,600
1951	37,100	5,590	3,610	690	NA	NA	45,600	551	3,440	82,600
1952	96,000	6,570	272	1,090	NA	NA	102,000	595	3,650	150,000
1953	84,400	5,480	2,220	2,690	NA	15,400	89,400	595	3,630	153,000
1954	63,300	2,950	673	2,990	NA	22,200	58,100	617	3,740	119,000
1955	55,500	4,130	1,690	7,690	NA	26,900	47,900	716	4,370	121,000
1956	62,000	4,860	595	3,570	NA	30,200	60,600	777	4,650	103,000
1957	73,700	4,590	930	1,450	NA	63,400	44,600	799	4,650	117,000
1958	27,300	4,330	510	954	NA	52,600	42,000	799	4,510	71,200
1959	28,200	4,460	585	2,170	NA	37,100	46,600	799	4,460	74,700
1960	36,400	3,940	393	4,660	NA	24,400	48,700	799	4,390	92,900
1961	37,000	4,280	944	6,060	NA	7,930	52,600	799	4,370	105,000
1962	62,600	2,850	2,220	6,390	NA	9,190	60,000	799	4,320	134,000
1963	68,800	1,990	2,140	14,700	3,150	16,800	53,800	799	4,250	143,000
1964	72,100	3,730	2,490		4,160	19,500	64,500	799	4,210	
1965	73,800	3,330	2,700	16,600	2,400	14,100	71,100	799	4,140	162,000

MAGNESIUM METAL STATISTICS¹ U.S. GEOLOGICAL SURVEY

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Last modification: October 25, 2012

	Primary	Secondary		Last mod	Government	ODCI 25,	Apparent	Unit value	Unit value	World
Year	production	production	Imports	Exports	shipments	Stocks	consumption	(\$/t)	(98\$/t)	production
1966	72,400	4,120	3,590	14,000	20,600	10,200	90,500	799	4,020	163,000
1967	88,400	3,730	8,820	12,000	20,000	11,700	87,500	799	3,900	185,000
1968	89,200	3,150	4,360	17,700	2,720	9,020	84,500	799	3,750	189,000
1969	90,600	2,710	3,920	24,800	24,000	11,400	94,000	799	3,550	198,000
1970	102,000	2,520	2,990	32,400	13,200	11,500	87,800	799	3,360	220,000
1971	112,000	2,850	3,330	22,100	644	13,400	94,900	799	3,220	232,000
1972	110,000	2,710	4,060	15,900	7,020	20,900	100,000	821	3,200	234,000
1973	111,000	3,720	3,020	35,900	60,500	17,100	146,000	843	3,100	240,000
1974	W	5,190	4,810	42,100	19,000	W	130,000	1,650	5,460	130,000
1975	109,000	8,880	7,170	29,600	NA	35,500	120,000	1,810	5,480	235,000
1976	109,000	10,500	13,500	12,200	NA	50,700	105,000	2,030	5,820	249,000
1977	114,000	11,400	5,410	25,500	NA	47,100	109,000	2,180	5,860	257,000
1978	136,000	12,800	6,050	37,900	NA	45,700	118,000	2,230	5,580	288,000
1979	147,000	12,600	4,310	49,200	NA	40,000	121,000	2,400	5,390	307,000
1980	154,000	15,900	3,410	51,500	NA	44,700	117,000	2,760	5,460	316,000
1981	140,000	21,900	6,260	31,600	NA	56,800	124,000	2,950	5,290	308,000
1982	92,700	21,300	4,340	35,900	NA	43,400	95,700	3,090	5,220	254,000
1983	105,000	22,400	5,760	42,400	NA	25,100	109,000	3,040	4,980	260,000
1984	144,000	24,300	8,510	43,900	NA	31,400	127,000	3,260	5,120	328,000
1985	136,000	23,500	8,410	36,900	NA	39,300	123,000	3,370	5,110	325,000
1986	126,000	23,000	8,360	39,900	NA	39,300	117,000	3,370	5,010	322,000
1987	124,000	23,500	10,900	44,200	NA	28,500	125,000	3,370	4,840	324,000
1988	142,000	27,600	14,400	49,800	NA	24,800	138,000	3,590	4,950	334,000
1989	152,000	28,000	12,300	56,600	NA	26,300	134,000	3,590	4,720	344,000
1990	139,000	31,100	26,800	51,800	NA	26,000	146,000	3,150	3,930	354,000
1991	131,000	27,500	31,900	55,200	NA	27,000	134,000	3,150	3,770	342,000
1992	137,000	30,900	11,800	52,000	NA	13,000	142,000	3,310	3,850	295,000
1993	132,000	30,600	37,200	38,800	NA	26,000	148,000	3,210	3,620	269,000
1994	128,000	29,600	29,100	45,200	NA	20,000	148,000	3,590	3,950	282,000
1995	142,000	29,700	34,800	38,300	NA	21,000	167,000	4,610	4,930	395,000
1996	133,000	30,100	46,600	40,500	NA	26,000	164,000	3,860	4,010	378,000
1997	125,000	30,500	65,100	40,500	NA	21,000	185,000	3,640	3,700	384,000
1998	106,000	31,800	82,500	35,400	NA	22,000	184,000	3,460	3,460	396,000
1999	W	34,200	90,700	29,100	NA	W	179,000	3,250	3,180	341,000
2000	W	30,100	91,400	23,800	NA	W	160,000	2,790	2,640	422,000
2001	W	27,200	68,500	19,600	NA	W	120,000	2,740	2,530	420,000
2002	W	26,400	88,000	25,400	NA	W	110,000	2,560	2,320	432,000
2003	W	25,400	83,400	20,400	NA	W	120,000	2,500	2,210	509,000
2004	W	20,500	98,600	11,800	NA	W	140,000	3,470	2,990	595,000
2005	W	19,400	84,700	9,650	NA	W	130,000	2,690	2,240	622,000
2006	W	21,700	75,300	12,300	NA	W	120,000	3,090	2,500	675,000
2007	W	23,500	71,800	14,800	NA	W	130,000	4,960	3,900	751,000
2008	W	22,600	83,200	14,400	NA	W	130,000	6,940	5,260	670,000
2009	W	19,500		19,600	NA	W	80,000	5,070		598,000
2010	W	20,500	52,700	14,800	NA	W	100,000	5,360		755,000
2011	W	24,100	48,400	12,300	NA	W	110,000	4,700		

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

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

¹Compiled by C.A. DiFrancesco (retired) and D.A. Kramer.

Magnesium Metal Worksheet Notes

Data Sources

The sources of data for the magnesium metal 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 Metal Prices in the United States through 1998 (MP98). The years of publication and corresponding years of data coverage are listed in the References section below.

Primary Production

Production data were for magnesium metal in the United States. Magnesium was first produced commercially in the United States in 1915. Data were from the MR and the MYB. Data were withheld for 1974 and 1999 to the most recent year in order to avoid disclosing proprietary data.

Secondary Production

Secondary production includes old scrap only (scrap including—but not limited to—metal articles that have been discarded after serving a useful purpose). Data were from the MR and the MYB. Data were not available for 1915–40.

Imports

Import data report the amount of magnesium metal imported into the United States. Data were from the MR and the MYB. Data were not available for 1915–17.

Exports

Export data report the amounts of magnesium metal exported from the United States. Data were from the MR and the MYB. Data were not available for 1915–27.

Government Shipments

Government shipment data were for shipments from the government stockpile. Data were from the MR and the MYB. Data were not available for 1915–62 and 1975 to the most recent year.

Stocks

Stocks data report the amount of magnesium metal held in stocks at the end of the year. Data were from the MR and the MYB. Data were not available for 1915–42 and 1944–52. Data were withheld for 1974 and 1999 to the most recent year in order to avoid disclosing proprietary data.

Apparent Consumption

Apparent consumption was estimated for 1915–98 by using the formula:

 $\label{eq:apparent_consumption} APPARENT \ CONSUMPTION = PRODUCTION \ (PRIMARY + SECONDARY) + IMPORTS - EXPORTS \pm GOVERNMENT \\ SHIPMENTS \pm STOCK \ CHANGES.$

Because production and stocks data were proprietary, apparent consumption was estimated by regression for 1974–75 to two significant figures. Rounded apparent consumption from the MCS was used for 1999 to the most recent year.

Unit Value (\$/t)

Unit value is the value in dollars of 1 metric ton (t) of magnesium metal apparent consumption. Unit values for 1915–98 were estimated for the United States in actual dollars by using price data from the MP98 for primary magnesium. Unit values for 1999 to the most recent year were from the MYB.

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

World production data were for primary magnesium produced. Data were from the MR and the MYB. Data were not available for 1915–36.

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. Geological Survey, 1916–27, Mineral Resources of the United States, 1915–23.
- U.S. Geological Survey, 1995-present, Minerals Yearbook, v. I. (Available via http://minerals.usgs.gov/minerals.)

- U.S. Geological Survey, 1999, Metal Prices in the United States through 1998.
- U.S. Geological Survey, 2003– most recent, Mineral Commodity Summaries 2003– most recent. (Available via http://minerals.usgs.gov/minerals.)

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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