



Mineral Industry Surveys

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MOLYBDENUM IN AUGUST 2002

Domestic production of molybdenum in concentrate in August 2002 was about 3.6% less than that of the previous month and was 19% more than that of August 2001, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were 9,810 metric tons at the beginning of 2002, and 6,490 metric tons at

the end of August.

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, plus U.S. consumption, by end use, and stocks, of molybdenum material in July and August 2002; also included are trade data for June and July 2002.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

	2001	2002		Year to date
	January-December	July r/	August	
Production	37,600	3,200	3,090	21,100
Shipments: 2/				
Domestic	20,700	2,190	1,610	14,400
Export	16,300	785	1,040	7,160

r/ Revised.

1/ Data are rounded to no more than three significant digits.

2/ Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS 1/

(Metric tons, contained molybdenum)

	2001	2002		Year to date
	January-December	July	August	
Gross production	40,300	2,030	3,090	19,000
Internal consumption 2/	24,600	1,150	2,060	12,500
Gross shipments	32,600	2,140	2,610	18,800

1/ Data are rounded to no more than three significant digits.

2/ Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molybdenum 2/	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
2002, July:						
Steel:						
Carbon	11,300 r/	34,300	--	--	W	45,600 r/
High-strength low-alloy	23,700 r/	12,000 r/	--	--	W	35,700 r/
Stainless and heat-resisting	199,000	55,000	--	--	8,150	262,000
Full alloy	109,000 r/	137,000 r/	--	--	2,870	249,000 r/
Tool	56,400	W	--	--	14,600	71,100
Total	400,000 r/	238,000 r/	--	--	25,600	664,000 r/
Cast irons (gray, malleable, and ductile iron)	W	13,400 r/	--	--	W	13,400 r/
Superalloys	34,100	W	--	(3/)	98,700	133,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	75	1,860 r/	--	--	6,350	8,280 r/
Mill products made from metal powder 4/	--	--	--	--	62,100 r/	62,100 r/
Cemented carbides and related products 5/	--	--	--	--	3	3
Chemical and ceramic uses:						
Pigments	W	--	W	--	W	W
Catalysts	77,300	--	W	--	14,900	92,200
Other	--	--	--	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	16,700	16,700
Other	1,090	13,100 r/	75,300	--	729 r/	90,200 r/
Grand total	512,000 r/	266,000 r/	75,300 r/	--	225,000 r/	1,080,000 r/
Stocks, July 31, 2002	494,000 r/	225,000 r/	3,760	37,900	863,000 r/	1,620,000 r/

See footnotes at end of table.

TABLE 3--Continued
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molybdenum 2/	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
2002, August:						
Steel:						
Carbon	14,700	32,100	--	--	W	46,800
High-strength low-alloy	24,500	12,600	--	--	W	37,000
Stainless and heat-resisting	216,000	55,600	--	--	8,520	280,000
Full alloy	99,500	190,000	--	--	2,500	292,000
Tool	44,500	3,760	--	--	14,600	62,900
Total	399,000	294,000	--	--	25,600	718,000
Cast irons (gray, malleable, and ductile iron)	W	14,000	--	--	W	14,000
Superalloys	52,100	W	--	(3/)	80,700	133,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	W	1,920	--	--	6,350	8,270
Mill products made from metal powder 4/	--	--	--	--	78,700	78,700
Cemented carbides and related products 5/	--	--	--	--	9	9
Chemical and ceramic uses:						
Pigments	--	--	W	--	W	W
Catalysts	77,300	--	W	--	14,900	92,200
Other	--	--	--	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	14,900	14,900
Other	1,160	5,560	75,300	--	1,480	83,500
Grand total	530,000	315,000	75,300	--	206,000	1,140,000
Stocks, August 31, 2002	461,000	255,000	4,620	34,000	878,000	1,630,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes calcium molybdate.

3/ Included in "Other" of the "Superalloys" category.

4/ Includes ingot, wire, rod, and sheet.

5/ Includes construction, mining, oil and gas, metal working machinery.

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	2001	2002		
	January-December	June	July	Year to date
Australia	147,000	3,000	5,700	29,700
Belgium	3,380,000	244,000	297,000	2,810,000
Brazil	30,100	295	2,740	20,200
Canada	650,000	119,000	116,000	651,000
Chile	11,800	7,000	--	11,900
China	201,000	--	--	32,900
Germany	512,000	--	--	58,700
India	294,000	22,700	--	136,000
Italy	95,000	--	--	47,900
Japan	1,700,000	74,000	48,700	693,000
Korea, Republic of	29,200	6,250	900	56,000
Mexico	764,000	62,100	1,500	180,000
Netherlands	13,500,000	361,000	592,000	3,810,000
Spain	63,400	--	--	38,300
Sweden	48,200	--	--	24,300
Taiwan	6,320	3,700	--	7,490
United Kingdom	6,210,000	306,000	95,600	2,620,000
Other	181,000	--	8,240	142,000
Total	27,800,000	1,210,000	1,170,000	11,400,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	2001	2002		Year to date
	January-December	June	July	
Australia	599	--	--	--
Canada	442,000	42,600	80,400	340,000
Chile	--	--	--	240
China	11,500	--	--	--
Germany	111,000	--	--	--
Korea, Republic of	876	--	--	--
Mexico	50,300	6,920	2,450	32,200
Netherlands	12,600	--	--	--
Switzerland	--	--	21,800	21,800
Taiwan	--	--	--	274
Total	629,000	49,500	105,000	394,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS 1/

(Kilograms, unless otherwise specified)

Material	January-December 2001			July 2002		
	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)
Ore and concentrates roasted	9,470,000	6,000,000	\$32,900	347,000	230,000	\$2,020
Ore and concentrates other	10,000	11,600	73	1,300	627	8
Molybdenum chemicals:						
Oxides and hydroxides	1,010,000	NA	5,530	108,000	NA	742
Molybdates of ammonium	2,740,000	1,610,000	15,100	268,000	154,000	2,260
Molybdates (all others)	318,000	113,000	1,050	19,000	28	59
Molybdenum orange	1,120,000	NA	5,180	119,000	NA	483
Ferromolybdenum	5,570,000	3,580,000	21,400	821,000	530,000	5,250
Molybdenum powders	172,000	163,000	3,390	5,570	3,300	175
Molybdenum unwrought	24,700	24,400	267	--	--	--
Molybdenum waste and scrap	775,000	714,000	7,140	--	--	--
Molybdenum wire	16,900	NA	1,080	--	--	--
Molybdenum other	14,400	NA	1,940	129	NA	39
Total	21,200,000	12,200,000	95,100	1,690,000	917,000	11,000

NA Not available. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.