

Mineral Industry Surveys

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MOLYBDENUM IN APRIL 2002

Domestic production of molybdenum in concentrate in April 2002 was about 23% less than that of the previous month and was 38% less than that of April 2001, according to the U.S. Geological Survey (USGS). Producer stocks of molybdenum in concentrate, oxide, and other product forms were 9,740 metric tons at the beginning of 2002, and 5,300 metric tons at the end of April. In April, the producer stocks decreased 32.5%.

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 March and April 2002; also included are trade data for February and March 2002.

The Platts Metals Week U.S. March average price for dealer molybdenum oxide was \$5.941 per kilogram (\$2.695 per pound), and that for dealer ferromolybdenum was \$7.551 per kilogram (\$3.425 per pound). The USGS estimated April

average price for molybdenum concentrate was \$5.84 per kilogram (\$2.65 per pound). The Ryan's Notes worldwide oxide 4-week average price reported for April 29 was \$2.636 per pound. The U.S. ferromolybdenum 4-week average price for April was \$3.306 per pound.

Update

As of June 24, 2002, the Platts Metals Week average price for dealer molybdenum oxide was \$14.110 per kilogram (\$6.400 per pound), and that for ferromolybdenum was \$17.692 per kilogram (\$8.025 per pound). The USGS estimated price for molybdenum concentrate was \$13.01 per kilogram (\$5.90 per pound).

The June 24, 2002, Ryan's Notes worldwide oxide 4-week average price was \$6.113 per pound; the U.S. ferromolybdenum 4-week average price was \$6.819 per pound.

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

(Metric tons, contained molybdenum)

	2001	2002		
	January- December p/	March	April	Year to date
Production	37,600	2,530	1,940	9,630
Shipments: 2/				
Domestic	20,700	1,760	1,520	6,870
Export	16,300	883	502	4,130

p/ Preliminary.

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		
	January- December p/	March	April	Year to date
Gross production	40,300	2,330	1,800	9,420
Internal consumption 2/	24,600	1,750	1,400	6,930
Gross shipments	32,600	2,410	2,290	8,950

p/ Preliminary.

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 molyb- denum 2/	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2002, March:						
Steel:						
Carbon	10,400	21,900	--	--	1,810	34,100
High-strength low-alloy	26,500	7,540	--	--	11,300	45,400
Stainless and heat-resisting	148,000	24,100	--	--	8,520	181,000
Full alloy	89,700	80,900	--	--	2,330	173,000
Tool	110,000	34,500	--	--	1,450	146,000
Total	385,000	169,000	--	--	25,500	579,000
Cast irons (gray, malleable, and ductile iron)	W	12,700	--	--	W	12,700
Superalloys	78,000	W	--	(3/)	100,000	178,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	177	2,460	--	--	22,700	25,300
Mill products made from metal powder 4/	--	--	--	--	76,300	76,300
Cemented carbides and related products 5/	--	--	--	--	16	16
Chemical and ceramic uses:						
Pigments	--	--	W	--	W	W
Catalysts	77,300	--	W	--	--	77,300
Other	--	--	--	--	14,900	14,900
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	11,500	11,500
Other	1,090	4,230	76,900	--	1,390	83,600
Grand total	541,000	188,000	76,900	--	253,000	1,060,000
Stocks, March 31, 2002	450,000	141,000	3,320	5,620	865,000	1,460,000

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, April:						
Steel:						
Carbon	11,800	21,800	--	--	1,810	35,500
High-strength low-alloy	27,900	6,850	--	--	11,300	46,100
Stainless and heat-resisting	152,000	69,200	--	--	8,520	229,000
Full alloy	98,500	154,000	--	--	1,050	254,000
Tool	75,500	W	--	--	W	75,500
Total	365,000	252,000	--	--	22,700	640,000
Cast irons (gray, malleable, and ductile iron)	W	13,900	--	--	W	13,900
Superalloys	47,100	W	--	(3/)	107,000	154,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	--	2,520	--	--	6,320	8,840
Mill products made from metal powder 4/	--	--	--	--	112,000	112,000
Cemented carbides and related products 5/	--	--	--	--	14	14
Chemical and ceramic uses:						
Pigments	--	--	W	--	W	W
Catalysts	77,300	--	W	--	14,900	92,200
Other	--	--	--	--	1,360	1,360
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	12,300	12,300
Other	1,090	31,700	75,400	--	3,450	112,000
Grand total	491,000	300,000	75,400	--	279,000	1,150,000
Stocks, April 30, 2002	464,000	217,000	5,760	30,100	859,000	1,580,000

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	February	March	Year to date
Australia	147,000	5,610	9,770	21,000
Belgium	3,380,000	451,000	292,000	1,750,000
Brazil	30,100	1,700	4,100	8,600
Canada	650,000	114,000	27,400	224,000
Chile	11,800	--	--	3,670
China	201,000	--	--	--
Germany	512,000	35,500	11,200	58,700
India	294,000	22,800	22,900	114,000
Italy	95,000	22,500	2,960	25,400
Japan	1,700,000	146,000	88,300	429,000
Korea, Republic of	29,200	3,680	300	38,800
Mexico	764,000	826	525	113,000
Netherlands	13,500,000	509,000	692,000	1,890,000
Spain	63,400	24,200	11,700	35,900
Sweden	48,200	619	--	619
United Kingdom	6,210,000	395,000	398,000	1,390,000
Other	187,000	62,700	35,400	123,000
Total	27,800,000	1,800,000	1,600,000	6,220,000

-- 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	February	March	
Australia	599	--	--	--
Canada	442,000	49,300	44,800	128,000
China	11,500	--	--	240
Germany	111,000	--	--	--
Korea, Republic of	876	--	--	--
Mexico	50,300	2,840	927	5,070
Netherlands	12,600	--	--	--
Total	629,000	52,100	45,800	133,000

-- 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			March 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	492,000	305,000	\$1,760
Ore and concentrates other	10,000	11,600	73	--	--	--
Molybdenum chemicals:						
Oxides and hydroxides	1,010,000	NA	5,530	59,900	NA	401
Molybdates of ammonium	2,740,000	1,610,000	15,100	188,000	107,000	1,090
Molybdates (all others)	318,000	113,000	1,050	22,800	2,970	63
Molybdenum orange	1,120,000	NA	5,180	99,900	NA	469
Ferromolybdenum	5,570,000	3,580,000	21,400	393,000	252,000	1,610
Molybdenum powders	172,000	163,000	3,390	2,030	2,000	78
Molybdenum unwrought	24,700	24,400	267	--	--	--
Molybdenum waste and scrap	776,000	749,000	7,160	--	--	--
Molybdenum wire	16,900	NA	1,080	--	NA	--
Molybdenum other	14,400	NA	1,940	469	NA	148
Total	21,200,000	12,200,000	95,100	1,260,000	670,000	5,610

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.