

# Mineral Industry Surveys

---

**For information, contact:**

John W. Blossom, Molybdenum Commodity Specialist  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4964, Fax: (703) 648-7757  
E-mail: [jblossom@usgs.gov](mailto:jblossom@usgs.gov)

Barbara J. McNair (Data)  
Telephone: (703) 648-7952  
Fax: (703) 648-7975

**Internet:** <http://minerals.usgs.gov/minerals>

## MOLYBDENUM IN MARCH 2002

Domestic production of molybdenum in concentrate in March 2002 was about 17% more than that of the previous month and was 28% less than that of March 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 7,850 metric tons at the end of March.

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

The Platts Metals Week U.S. March average price for dealer molybdenum oxide was \$6.129 per kilogram (\$2.780 per pound), and that for dealer ferromolybdenum was \$7.523 per kilogram (\$3.413 per pound). The USGS estimated March

average price for molybdenum concentrate was \$5.09 per kilogram (\$2.31 per pound). The Ryan's Notes worldwide oxide 4-week average price for March was \$2.709 per pound; the U.S. ferromolybdenum 4-week average price for February was \$3.325 per pound.

### Update

As of May 23, 2002, the Platts Metals Week average price for dealer molybdenum oxide was \$8.047 per kilogram (\$3.650 per pound), and that for ferromolybdenum was \$8.267 per kilogram (\$3.750 per pound). The USGS estimated price for molybdenum concentrate was \$6.94 per kilogram (\$3.15 per pound).

The May 27, 2002, Ryan's Notes worldwide oxide 4-week average price was \$2.950 per pound; the U.S. ferromolybdenum 4-week average price was \$3.606 per pound.

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

(Metric tons, contained molybdenum)

	2001	2002		Year to date
	January-December p/	February	March	
Production	37,600	2,170	2,530	7,690
Shipments: 2/				
Domestic	20,700	1,750	1,760	5,350
Export	16,300	461	883	3,630

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		Year to date
	January-December p/	February	March	
Gross production	40,300	2,390	2,330	7,630
Internal consumption 2/	24,600	1,980	1,750	5,530
Gross shipments	32,600	1,580	2,410	6,660

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 molybdenum 2/	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
2002, February:						
Steel:						
Carbon	10,700	28,600	--	--	1,810	41,100
High-strength low-alloy	24,800	7,540	--	--	9,070	41,400
Stainless and heat-resisting	154,000	24,000	--	--	8,520	187,000
Full alloy	88,600	141,000	--	--	2,330	232,000
Tool	99,900	W	--	--	1,450	101,000
Total	378,000	201,000	--	--	23,200	602,000
Cast irons (gray, malleable, and ductile iron)	W	19,000	--	--	W	19,000
Superalloys	68,500	W	--	(3/)	99,000	167,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	177	2,490	--	--	6,210	8,870
Mill products made from metal powder 4/	--	--	--	--	135,000	135,000
Cemented carbides and related products 5/	--	--	--	--	10	10
Chemical and ceramic uses:						
Pigments	--	--	W	--	W	W
Catalysts	77,300	--	W	--	--	77,300
Other	--	--	--	--	14,900	14,900
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	1,390	42,900	78,300	--	1,210	124,000
Grand total	525,000	265,000	78,300	--	290,000	1,160,000
Stocks, February 28, 2002	398,000	142,000	4,150	12,700	869,000	1,430,000

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, 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

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	January	February	Year to date
Australia	147,000	5,600	5,610	11,200
Belgium	3,380,000	1,010,000	451,000	1,460,000
Brazil	30,100	2,800	1,700	4,500
Canada	650,000	81,800	114,000	196,000
Chile	11,800	3,670	--	3,670
China	201,000	--	--	--
Germany	512,000	12,000	35,500	47,500
India	294,000	67,800	22,800	90,700
Italy	95,000	--	22,500	22,500
Japan	1,700,000	195,000	146,000	341,000
Korea, Republic of	29,200	34,800	3,680	38,500
Mexico	764,000	112,000	826	113,000
Netherlands	13,500,000	692,000	509,000	1,200,000
Spain	63,400	--	24,200	24,200
Sweden	48,200	--	619	619
United Kingdom	6,210,000	595,000	395,000	990,000
Other	187,000	25,300	62,700	88,000
Total	27,800,000	2,830,000	1,800,000	4,630,000

-- 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	January	February	
Australia	599	--	--	--
Canada	442,000	33,600	49,300	82,900
China	11,500	240	--	240
Germany	111,000	--	--	--
Japan	--	--	--	--
Korea, Republic of	876	--	--	--
Mexico	50,300	1,300	2,840	4,140
Netherlands	12,600	--	--	--
Total	629,000	35,100	52,100	87,200

-- 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			February 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	746,000	468,000	\$2,680
Ore and concentrates other	10,000	11,600	73	--	--	--
Molybdenum chemicals:						
Oxides and hydroxides	1,010,000	NA	5,530	169,000	NA	904
Molybdates of ammonium	2,740,000	1,610,000	15,100	188,000	110,000	920
Molybdates (all others)	318,000	113,000	1,050	18,000	180	57
Molybdenum orange	1,120,000	NA	5,180	110,000	NA	478
Ferromolybdenum	5,570,000	3,580,000	21,400	189,000	119,000	747
Molybdenum powders	172,000	163,000	3,390	2,390	1,780	53
Molybdenum unwrought	24,700	24,400	267	5,500	5,490	53
Molybdenum waste and scrap	776,000	749,000	7,160	63,600	63,200	683
Molybdenum wire	16,900	NA	1,080	588	NA	36
Molybdenum other	14,400	NA	1,940	597	NA	215
Total	21,200,000	12,200,000	95,100	1,490,000	768,000	6,830

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.