Mineral Industry Surveys

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MOLYBDENUM IN DECEMBER 2001

Domestic production of molybdenum in concentrate in December 2001 was about 10% less than that of the previous month and was the same as that of December 2000, according to the U.S. Geological Survey (USGS). Producer stocks of molybdenum in concentrate, oxide, and other product forms were 9,450 metric tons at the beginning of 2001, and 9,740 metric tons at the end of December.

Domestic production of molybdenum in concentrate in 2001 was about 8% (3,300 tons) less than that of the previous year. U.S. consumption of molybdenum products in 2001 was about 6% (1,400 tons) more than that of the previous year.

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 November and December 2001; also included are trade data for November.

The Platts Metals Week U.S. December average price for dealer molybdenum oxide was $5.137 per kilogram ($2.330 per pound), and that for dealer ferromolybdenum was $6.724 per kilogram ($3.050 per pound). The USGS estimated December average price for molybdenum concentrate was $4.03 per kilogram ($1.83 per pound). The Ryan's Notes worldwide oxide, 4-week average price for December, was $2.354 per pound; the U.S. ferromolybdenum, 4-week average price for December, was $3.041 per pound.

Update

For the week of February 18, 2002, the Platts Metals Week average price for dealer molybdenum oxide was $6.228 per kilogram ($2.825 per pound), and that for ferromolybdenum was $7.441 per kilogram ($3.375 per pound). The USGS estimated price for molybdenum concentrate was $5.14 per kilogram ($2.33 per pound).

The February 11, 2002, Ryan's Notes price for worldwide oxide was $2.750 per pound; the U.S. ferromolybdenum price was $3.250 per pound.

For the year of 2001, the Platts Metals Week average price for dealer molybdenum oxide was $5.178 per kilogram and that for ferromolybdenum was $7.409 per kilogram.

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

(Metric tons, contained molybdenum)

	2000	2001		
	January-December	November	December	Year to date 2/
Production	40,900	3,380 r/	3,030	37,600
Shipments: 3/				
Domestic	15,800	1,610 r/	1,850	20,700
Export	19,700	1,470	788	16,300

r/ Revised.
1/ Data are rounded to no more than three significant digits.
2/ May include revisions to previous months' data.
3/ 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)

	2000	2001		
	January-December	November r/	December	Year to date 2/
Gross production	42,900	2,520	2,710	40,300
Internal consumption 3/	23,200	1,550	1,630	24,600
Gross shipments	34,600	2,440	3,180	32,600

r/ Revised.
1/ Data are rounded to no more than three significant digits.
2/ May include revisions to previous months' data.
3/ 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
2001, November:						
Steel:						
Carbon	12,600	21,600	--	--	1,810	36,000
High-strength low-alloy	25,500	6,880	--	--	11,300	43,800
Stainless and heat-resisting	173,000	17,400	--	--	8,520	199,000
Full alloy	84,800	139,000	--	--	2,330	226,000
Tool	59,900	W	--	--	1,450	61,400
Total	356,000	185,000	--	--	25,500	566,000
Cast irons (gray, malleable, and ductile iron)	2,170	17,100	--	--	W	19,200
Superalloys	71,400	W	--	(3/)	91,100	162,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	51	3,080	--	--	6,210	9,340
Mill products made from metal powder 4/	--	--	--	--	141,000	141,000
Cemented carbides and related products 5/	--	--	--	--	13	13
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	--	--	--	--	11,600	11,600
Other	--	36,000	81,100	--	763	118,000
Grand total	506,000	241,000	81,100	--	292,000	1,120,000
Stocks, November 30, 2001	479,000	154,000	4,930	20,000	862,000	1,520,000

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 molyb-denum 2/	Ammonium and sodium molybdate	Molyb-denum scrap	Other	Total
2001, December:						
Steel:						
Carbon	10,600	W	--	--	1,810	12,400
High-strength low-alloy	22,800	5,730	--	--	11,300	39,900
Stainless and heat-resisting	101,000	19,400	--	--	8,520	128,000
Full alloy	85,100	101,000	--	--	2,330	189,000
Tool	56,700	W	--	--	1,450	58,100
Total	276,000	127,000	--	--	25,500	428,000
Cast irons (gray, malleable, and ductile iron)	W	19,600	--	--	W	19,600
Superalloys	63,000	W	--	(3/)	99,600	163,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	103	3,170	--	--	6,210	9,480
Mill products made from metal powder 4/	--	W	--	--	87,500	87,500
Cemented carbides and related products 5/	--	--	--	--	6	6
Chemical and ceramic uses:						
Pigments	--	--	W	--	W	W
Catalysts	77,300	--	W	--	14,900	92,200
Other	--		--	--	764	764
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	13,800	13,800
Other	1,390	54,400	77,300	--	763	134,000
Grand total	417,000	204,000	77,300	--	249,000	947,000
Stocks, December 31, 2001	435,000	146,000	5,010	7,880	863,000	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	2000 January-December	2001 October	2001 November	2001 Year to date
Australia	31,400	11,200	5,600	144,000
Belgium	5,120,000	452,000	405,000	3,170,000
Brazil	31,300	1,270	2,800	26,900
Canada	1,420,000	49,000	7,050	615,000
Chile	35,000	--	--	11,800
China	795,000	--	--	201,000
Germany	672,000	11,500	23,700	488,000
India	687	22,200	22,000	272,000
Italy	89,800	--	--	59,600
Japan	3,100,000	121,000	108,000	1,590,000
Korea, Republic of	16,100	2,550	2,760	26,500
Mexico	61,800	166,000	184,000	494,000
Netherlands	8,780,000	836,000	1,180,000	12,600,000
Spain	57,500	11,800	--	51,400
Sweden	454,000	--	--	48,200
United Kingdom	2,910,000	695,000	521,000	5,630,000
Other	42,600	35,700	73,600	161,000
Total	23,600,000	2,420,000	2,540,000	25,600,000

-- 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	2000 January-December	2001 October	2001 November	2001 Year to date
Australia	1,140	--	--	599
Canada	553,000	46,200	34,500	425,000
China	--	--	--	11,500
Germany	196	--	--	111,000
Japan	57,000	--	--	--
Korea, Republic of	2,990	--	--	876
Mexico	128,000	6,700	--	49,300
Netherlands	--	--	--	12,600
Total	742,000	52,900	34,500	612,000

-- 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 2000 Gross weight	January-December 2000 Contained molybdenum	January-December 2000 Value (c.i.f.) (thousands)	November 2001 Gross weight	November 2001 Contained molybdenum	November 2001 Value (c.i.f.) (thousands)
Ore and concentrates roasted	6,900,000	4,340,000	$25,800	746,000	471,000	$2,590
Ore and concentrates other	3,440,000	1,780,000	9,660	--	--	--
Molybdenum chemicals:						
Oxides and hydroxides	1,210,000	NA	7,400	60,200	NA	270
Molybdates of ammonium	2,270,000	1,310,000	12,200	105,000	62,700	525
Molybdates (all others)	332,000	236,000	1,170	20,900	489	64
Molybdenum orange	1,620,000	NA	7,320	66,800	NA	296
Ferromolybdenum	8,310,000	5,310,000	35,600	352,000	222,000	1,400
Molybdenum powders	137,000	125,000	3,770	6,100	3,970	149
Molybdenum unwrought	15,900	16,100	328	--	--	--
Molybdenum waste and scrap	475,000	466,000	5,670	77,000	68,300	633
Molybdenum wire	16,700	NA	894	1,240	NA	178
Molybdenum other	7,420	NA	1,600	739	NA	97
Total	24,700,000	13,600,000	111,000	1,440,000	829,000	6,200

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.