

# Mineral Industry Surveys

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## MOLYBDENUM IN JANUARY 2021

Domestic production of molybdenum in concentrate in January 2021 was slightly less than the output of the previous month and 3% less than that of January 2020 (fig. 1, table 1).

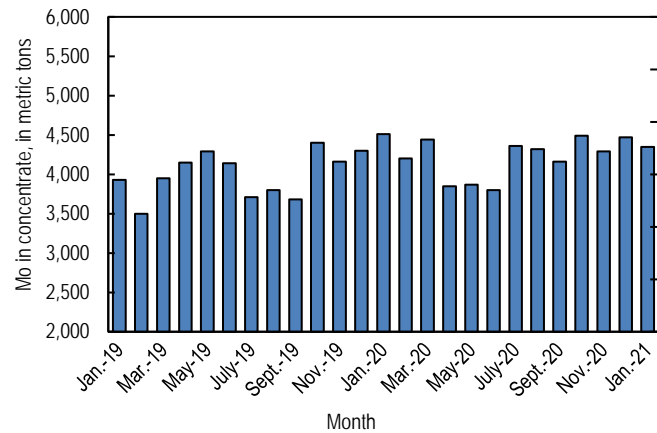


Figure 1. Monthly domestic production of molybdenum (Mo) in concentrate from January 2019 through January 2021 (may include revisions to previously published data).

According to CRU Group (2021), the January 2021 monthly average price range for U.S. ferromolybdenum (FeMo) was \$11.106 to \$11.656 per pound of molybdenum content, compared with \$10.600 to \$10.800 per pound in December 2020. FeMo monthly averages in Europe ranged from \$24.250 to \$24.825 per kilogram (\$11.000 to \$11.260 per pound) of molybdenum content in January 2021 compared with \$22.970 to \$23.330 per kilogram (\$10.419 to \$10.582 per pound) in December 2020. U.S. molybdic oxide (MoO<sub>3</sub>) prices ranged

from \$9.900 to \$10.150 per pound of molybdenum content in January 2021 compared with \$9.020 to \$9.300 per pound in December 2020 (fig. 2).

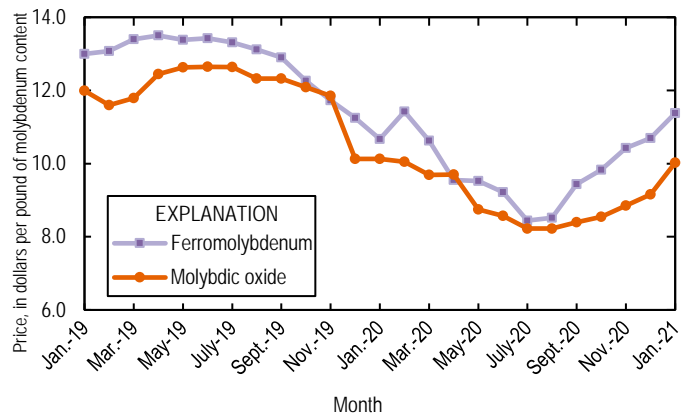


Figure 2. Average monthly prices for U.S. ferromolybdenum and molybdic oxide from January 2019 through January 2021. Source: CRU Group.

**Reference Cited**

CRU Group, 2021, Molybdenum prices: London, United Kingdom, CRU Group, May 3. (Accessed May 04, 2021, via <http://www.crugroup.com/>.)

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TABLE 1  
U.S. SALIENT MOLYBDENUM CONCENTRATE  
STATISTICS<sup>1,2</sup>

(Metric tons, contained molybdenum)

Period	Production	Shipments <sup>3,4</sup>
2020:		
January	4,510 <sup>r</sup>	4,490 <sup>r</sup>
February	4,200 <sup>r</sup>	4,180 <sup>r</sup>
March	4,440 <sup>r</sup>	4,460 <sup>r</sup>
April	3,850 <sup>r</sup>	4,360 <sup>r</sup>
May	3,870 <sup>r</sup>	3,860 <sup>r</sup>
June	3,800 <sup>r</sup>	3,780 <sup>r</sup>
July	4,360 <sup>r</sup>	4,370 <sup>r</sup>
August	4,320 <sup>r</sup>	4,310 <sup>r</sup>
September	4,160 <sup>r</sup>	4,110 <sup>r</sup>
October	4,490 <sup>r</sup>	4,510 <sup>r</sup>
November	4,290 <sup>r</sup>	4,330 <sup>r</sup>
December	4,470 <sup>r</sup>	4,510 <sup>r</sup>
January–December	50,800 <sup>r</sup>	51,300 <sup>r</sup>
2021, January	4,350	4,320

<sup>r</sup>Revised.

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

<sup>2</sup>Includes data from Freeport-McMoRan Inc., 2020–2021. Adjusted by USGS to reflect estimated monthly data.

<sup>3</sup>As reported by producers.

<sup>4</sup>Shipments include sales to domestic customers, sales for export, and transfers to other company plants.

TABLE 2  
U.S. CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS<sup>e,1</sup>

(Kilograms, contained molybdenum)

End use	Molybdc oxides	Ferro molyb- denum <sup>2</sup>	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2020, December:						
Steel:						
Carbon	W	W	--	--	--	W
High-strength low-alloy	W	9,000	--	--	--	9,000
Stainless and heat-resisting	149,000	47,000	--	(3)	W	196,000
Full alloy	246,000	78,000	--	--	W	324,000
Tool	W	W	--	--	--	W
Total	395,000	134,000	--	(3)	W	529,000
Cast irons (gray, malleable, and ductile iron)	--	W	--	--	--	W
Superalloys	--	--	--	(3)	64,000	64,000
Alloys: (other than steels, cast irons, and superalloys)						
Other alloys	200	W	--	--	--	200
Mill products made from metal powder <sup>4</sup>	--	--	--	--	W	W
Cemented carbides and related products <sup>5</sup>	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	(3)
Catalysts	W	--	(3)	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,000	10,000
Other	190,000	51,000	400	(3)	329,000	570,000
Grand total	585,000	185,000	400	(3)	403,000	1,170,000
Stocks, December 31, 2020	493,000	762,000	3,000	(6)	(6)	2,100,000
2021, January:						
Steel:						
Carbon	W	W	--	--	--	W
High-strength low-alloy	W	9,000	--	--	--	9,000
Stainless and heat-resisting	151,000	48,000	--	(3)	W	199,000
Full alloy	246,000	77,000	--	--	W	323,000
Tool	W	W	--	--	--	W
Total	397,000	134,000	--	(3)	W	531,000
Cast irons (gray, malleable, and ductile iron)	--	W	--	--	--	W
Superalloys	--	--	--	(3)	63,000	63,000
Alloys: (other than steels, cast irons, and superalloys)						
Other alloys	200	W	--	--	--	200
Mill products made from metal powder <sup>4</sup>	--	--	--	--	W	W
Cemented carbides and related products <sup>5</sup>	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	(3)
Catalysts	W	--	(3)	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	9,000	9,000
Other	180,000	60,000	400	(3)	290,000	530,000
Grand total	577,000	194,000	400	(3)	362,000	1,130,000
Stocks, January 31, 2021	491,000	650,000	3,000	(6)	(6)	1,900,000

<sup>e</sup>Estimated. W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified uses: Other" category. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown. Includes U.S. Geological Survey estimates.

<sup>2</sup>Includes calcium molybdate.

<sup>3</sup>Withheld to avoid disclosing company proprietary data; included in "Other, Miscellaneous and unspecified uses: Other" category.

<sup>4</sup>Includes ingot, wire, rod, and sheet.

<sup>5</sup>Includes construction, mining, oil and gas, and metalworking machinery.

<sup>6</sup>Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 3  
 U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES  
 (including roasted concentrate), BY COUNTRY OR LOCALITY<sup>1</sup>

(Kilograms, contained molybdenum)

Country or locality	2020			2021 January
	January– December	January	December	
Belgium	9,540,000	922,000	962,000	578,000
Brazil	25,600	--	--	--
Cambodia	1,440	--	--	--
Canada	1,130,000	174,000	29,500	67,000
Chile	2,080,000	--	706,000	267,000
China	3,520,000	1,700	641,000	114,000
Estonia	305,000	--	--	--
Germany	285	--	--	--
India	915,000	51,500	125,000	85,000
Japan	3,030,000	316,000	46,400	234,000
Korea, Republic of	4,880,000	511,000	433,000	239,000
Mexico	4,250,000	613,000	400,000	460,000
Netherlands	24,600,000	1,220,000	2,240,000	4,070,000
South Africa	300	--	--	--
Thailand	714,000	73,100	--	--
Turkey	1,400	363	--	--
United Kingdom	5,100,000	324,000	144,000	181,000
Vietnam	381,000	26,000	42,100	12,900
Total	60,400,000	4,230,000	5,770,000	6,310,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY OR LOCALITY<sup>1</sup>

(Kilograms, contained molybdenum)

Country or locality	2020			2021 January
	January- December	January	December	
Australia	1,070	697	--	--
Canada	381,000	33,300	31,300	21,400
Denmark	948	474	--	474
Mexico	170,000	22,000	--	226
Total	554,000	56,400	31,300	22,100

-- Zero.

<sup>1</sup>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. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS<sup>1</sup>

(Kilograms, unless otherwise specified)

Material	January–December 2020			January 2021		
	Gross weight	Contained molybdenum	Value <sup>2</sup> (thousands)	Gross weight	Contained molybdenum	Value <sup>2</sup> (thousands)
Ore and concentrates, roasted	7,310,000	4,490,000	\$81,900	488,000	312,000	\$5,960
Ore and concentrates, other	22,300,000	10,600,000	210,000	2,350,000	1,170,000	20,800
Molybdenum chemicals:						
Oxides and hydroxides	3,450,000	NA	54,100	299,000	NA	4,810
Molybdates of ammonium	947,000	533,000	12,900	123,000	69,500	1,740
Molybdates (all others)	109,000	44,500	1,120	22,200	8,790	216
Molybdenum orange	138,000	NA	1,270	4,420	NA	29
Ferromolybdenum	6,820,000	4,630,000	99,400	982,000	683,000	15,400
Molybdenum powders	201,000	184,000	6,830	9,740	9,640	145
Molybdenum unwrought	415,000	413,000	11,900	31,100	30,800	765
Molybdenum waste and scrap	1,130,000	1,100,000	31,000	79,300	79,100	1,730
Molybdenum wire	16,500	NA	1,620	1,760	NA	149
Molybdenum other	174,000	NA	14,900	13,300	NA	1,220
Total	43,000,000	XX	527,000	4,400,000	XX	52,900

NA Not available. XX Not applicable.

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

<sup>2</sup>Customs value.

Source: U.S. Census Bureau.