

# Mineral Industry Surveys

**For information, contact:**

Désirée E. Polyak, Molybdenum Commodity Specialist  
 National Minerals Information Center  
 U.S. Geological Survey  
 989 National Center  
 Reston, VA 20192  
 Telephone: (703) 648-4909, Fax: (703) 648-7757  
 Email: dpolyak@usgs.gov

Raymond I. Eldridge III (Data)  
 Telephone: (703) 648-7982  
 Fax: (703) 648-7975  
 Email: reldridge@usgs.gov

**Internet:** <https://www.usgs.gov/centers/nmic>

## MOLYBDENUM IN JANUARY 2020

Domestic production of molybdenum in concentrate in January 2020 was 5% more than the output of the previous month and 15% more than that of January 2019 (fig. 1, table 1).

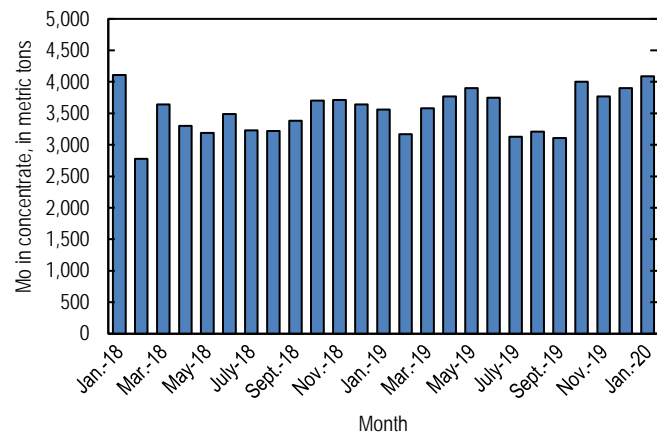


Figure 1. Monthly domestic production of molybdenum (Mo) in concentrate from January 2018 through January 2020 (may include revisions to previously published data).

According to CRU Group (2020), the January 2020 monthly average price range for U.S. ferromolybdenum (FeMo) was \$10.339 to \$11.000 per pound of molybdenum content, compared with \$10.939 to \$11.556 per pound in December 2019. FeMo monthly averages in Europe ranged from \$23.128 to \$23.878 per kilogram (\$10.491 to \$10.831 per pound) of molybdenum content in January 2020 compared with \$22.100 to \$22.900 per kilogram (\$10.024 to \$10.387 per pound) in December 2019. U.S. molybdenum oxide (MoO<sub>3</sub>) prices ranged

from \$9.750 to \$10.500 per pound of molybdenum content in both December 2019 and January 2020 (fig. 2).

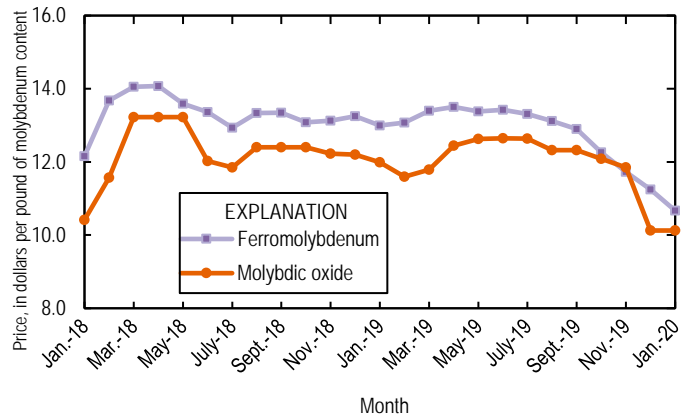


Figure 2. Average monthly prices for U.S. ferromolybdenum and molybdenic oxide from January 2018 through January 2020. Source: CRU Group.

**Reference Cited**

CRU Group, 2020, Molybdenum prices: CRU Group, February 28. (Accessed April 8, 2020, via <http://www.crugroup.com/>)

*List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <https://www.usgs.gov/centers/nmic/minerals-information-publication-list-services>.*

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

(Metric tons, contained molybdenum)

Period	Production	Shipments <sup>3,4</sup>
2019:		
January	3,560 <sup>r</sup>	3,560 <sup>r</sup>
February	3,170 <sup>r</sup>	3,140 <sup>r</sup>
March	3,580 <sup>r</sup>	3,630 <sup>r</sup>
April	3,770 <sup>r</sup>	3,750 <sup>r</sup>
May	3,900 <sup>r</sup>	3,900 <sup>r</sup>
June	3,750 <sup>r</sup>	3,750 <sup>r</sup>
July	3,130 <sup>r</sup>	3,130 <sup>r</sup>
August	3,210 <sup>r</sup>	3,200 <sup>r</sup>
September	3,110 <sup>r</sup>	3,100 <sup>r</sup>
October	4,000 <sup>r</sup>	4,010 <sup>r</sup>
November	3,770 <sup>r</sup>	3,780 <sup>r</sup>
December	3,900 <sup>r</sup>	3,920 <sup>r</sup>
January–December	42,900 <sup>r</sup>	42,900 <sup>r</sup>
2020, January	4,090	4,050

<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 Copper & Gold Inc., 2019–2020. 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. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS<sup>1</sup>

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum <sup>2</sup>	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2019:						
December:						
Steel:						
Carbon	W	W	--	--	--	W
High-strength low-alloy	W	14,400	--	--	--	14,400
Stainless and heat-resisting	196,000	49,300	--	(3)	W	245,000
Full alloy	246,000	76,600	--	--	W	322,000
Tool	W	W	--	--	--	W
Total	442,000	140,000	--	(3)	W	582,000
Cast irons (gray, malleable, and ductile iron)	--	W	--	--	--	W
Superalloys	--	W	--	(3)	62,200	62,200
Alloys: (other than steels, cast irons, and superalloys)						
Other alloys	61	W	--	--	--	61
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	--	--	--	--	9,440	9,440
Other	213,000	52,800	425	(3)	334,000	600,000
Grand total	655,000	193,000	425	(3)	405,000	1,250,000
Stocks, December 31, 2019	523,000	317,000	2,750	(6)	(6)	1,730,000 <sup>r</sup>
2020:						
January:						
Steel:						
Carbon	W	W	--	--	--	W
High-strength low-alloy	W	14,400	--	--	--	14,400
Stainless and heat-resisting	183,000	49,300	--	(3)	W	232,000
Full alloy	246,000	76,600	--	--	W	322,000
Tool	W	W	--	--	--	W
Total	429,000	140,000	--	(3)	W	569,000
Cast irons (gray, malleable, and ductile iron)	--	W	--	--	--	W
Superalloys	--	--	--	(3)	63,800	63,800
Alloys: (other than steels, cast irons, and superalloys)						
Other alloys	230	W	--	--	--	230
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	--	--	--	--	9,440	9,440
Other	213,000	61,500	425	(3)	334,000	609,000
Grand total	642,000	202,000	425	(3)	407,000	1,250,000
Stocks, January 31, 2020	512,000	355,000	2,750	(6)	865,000	1,760,000

<sup>r</sup>Revised. 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, 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	2019			2020
	January– December	January	December	January
Belgium	6,690,000	845,000	561,000	922,000
Brazil	15,900	--	--	--
Canada	1,120,000	114,000	144,000	174,000
Chile	218,000	218,000	--	--
China	533,000	54,000	31,700	1,700
Colombia	339	--	--	--
Germany	1,090	--	--	--
India	205,000	1,070	21,800	51,500
Japan	3,920,000	252,000	288,000	316,000
Korea, Republic of	3,120,000	140,000	438,000	511,000
Mexico	3,050,000	248,000	406,000	613,000
Netherlands	35,900,000	3,180,000	2,590,000	1,220,000
Sri Lanka	1,630	--	--	--
Taiwan	23,300	23,300	--	--
Thailand	1,380,000	--	28,900	73,100
Turkey	--	--	--	363
United Kingdom	7,550,000	1,770,000	757,000	324,000
Vietnam	434,000	22,100	21,000	26,000
Total	64,200,000	6,870,000	5,290,000	4,230,000

-- 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	2019			2020 January
	January– December	January	December	
Australia	1,610	--	--	697
Canada	185,000	6,800	28,400	33,300
China	1,210	1,210	--	--
Denmark	903	431	--	474
Mexico	306,000	18,000	2,000	22,000
United Kingdom	420	--	--	--
Total	495,000	26,400	30,400	56,400

-- 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 2019			January 2020		
	Gross weight	Contained molybdenum	Value <sup>2,3</sup> (thousands)	Gross weight	Contained molybdenum	Value <sup>2</sup> (thousands)
Ore and concentrates, roasted	6,470,000	4,030,000	\$89,600	1,020,000	623,000	\$11,500
Ore and concentrates, other	34,400,000	16,400,000	440,000	4,380,000	1,990,000	47,600
Molybdenum chemicals:						
Oxides and hydroxides	4,290,000	NA	89,300	278,000	NA	3,390
Molybdates of ammonium	1,400,000	789,000	24,200	69,100	33,900	885
Molybdates (all others)	221,000	87,700	3,060	--	--	--
Molybdenum orange	234,000	NA	1,350	11,200	NA	101
Ferromolybdenum	10,400,000	6,990,000	196,000	434,000	288,000	6,440
Molybdenum powders	238,000	221,000	8,520	44,000	43,000	1,460
Molybdenum unwrought	595,000	593,000	19,300	41,100	40,900	1,150
Molybdenum waste and scrap	1,890,000	1,740,000	59,500	102,000	101,000	3,080
Molybdenum wire	18,400	NA	2,150	1,120	NA	110
Molybdenum other	193,000	NA	18,300	13,000	NA	1,190
Total	60,300,000	XX	951,000	6,390,000	XX	76,900

NA Not available. XX Not applicable. -- Zero

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

<sup>2</sup>Customs value.

<sup>3</sup>May include revisions to previous published data.

Source: U.S. Census Bureau.