

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 JULY 2020

Domestic production of molybdenum in concentrate in July 2020 was slightly more compared with the output of the previous month but was 61% more than that of July 2019. Total production during the first 7 months of 2020 was 38% more than total production during the same period in 2019 (fig. 1, table 1).

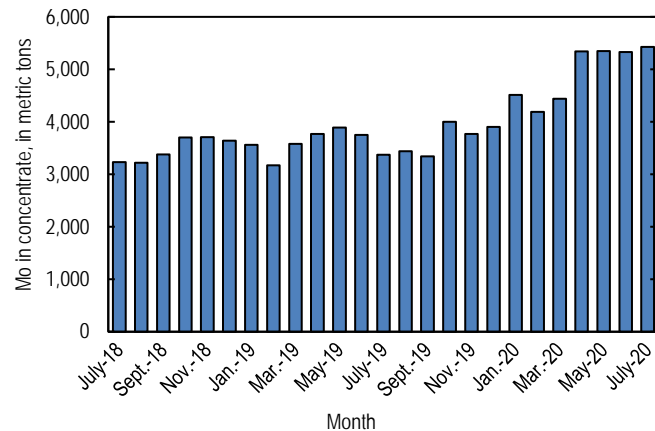


Figure 1. Monthly domestic production of molybdenum (Mo) in concentrate from July 2018 through July 2020 (may include revisions to previously published data).

According to CRU Group (2020), the July 2020 monthly average price range for U.S. ferromolybdenum (FeMo) was \$8.217 to \$8.667 per pound of molybdenum content, compared with \$8.878 to \$9.561 per pound in June 2020. FeMo monthly averages in Europe ranged from \$18.167 to \$18.661 per kilogram (\$8.240 to \$8.464 per pound) of molybdenum content in July 2020 compared with \$18.744 to \$19.500 per kilogram

(\$8.502 to \$8.845 per pound) in June 2020. U.S. molybdenum oxide (MoO₃) prices ranged from \$7.950 to \$8.500 per pound of molybdenum content in July 2020 compared with \$8.317 to \$8.833 per pound of molybdenum content in June 2020 (fig. 2).

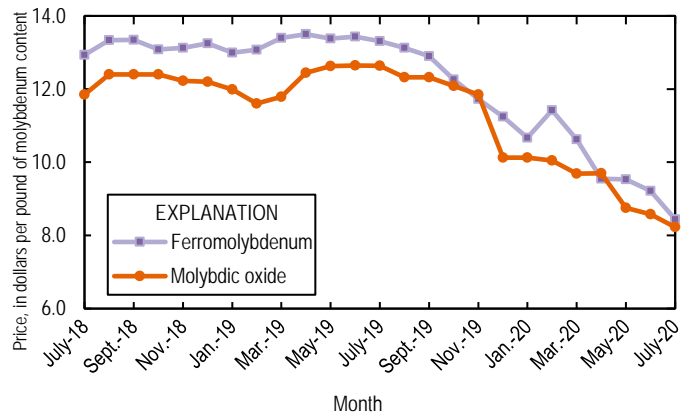


Figure 2. Average monthly prices for U.S. ferromolybdenum and molybdenic oxide from July 2018 through July 2020. Source: CRU Group.

Reference Cited

CRU Group, 2020, Molybdenum prices: London, United Kingdom, CRU Group, September 1. (Accessed October 2, 2020, via <http://www.crugroup.com/>.)

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TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE
STATISTICS^{1,2}

(Metric tons, contained molybdenum)

Period	Production	Shipments ^{3,4}
2019:		
January	3,560	3,560
February	3,170	3,140
March	3,580	3,630
April	3,770	3,750
May	3,890	3,890
June	3,750	3,750
July	3,370	3,370
August	3,440	3,440
September	3,340	3,330
October	4,000	4,010
November	3,770	3,780
December	3,900	3,920
January–December	43,600	43,600
2020:		
January	4,510	4,480
February	4,190	4,200
March	4,440	4,440
April	5,340	5,380
May	5,350	5,370
June	5,330	5,330
July	5,430	5,430
January–July	34,600	34,600

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

²Includes data from Freeport-McMoRan Inc., 2019–2020. Adjusted by USGS to reflect estimated monthly data.

³As reported by producers.

⁴Shipments 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 MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdc oxides	Ferro molyb- denum ²	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2020:						
June:						
Steel:						
Carbon	W	W	--	--	--	W
High-strength low-alloy	W	9,540	--	--	--	9,540
Stainless and heat-resisting	154,000	47,700	--	(3)	W	201,000
Full alloy	246,000	76,600	--	--	W	322,000
Tool	W	W	--	--	--	--
Total	399,000	134,000	--	(3)	--	533,000
Cast irons (gray, malleable, and ductile iron)	--	W	--	--	--	W
Superalloys	--	--	--	(3)	61,900	61,900
Alloys: (other than steels, cast irons, and superalloys)						
Other alloys	110	W	--	--	--	110
Mill products made from metal powder ⁴	--	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	(3)
Catalysts	W	--	(3)	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	9,440	9,440
Other	168,000	47,800	425	(3)	329,000	545,000
Grand total	567,000	182,000	425	(3)	400,000	1,150,000
Stocks, June 30, 2020	505,000	733,000	2,740	(6)	(6)	2,120,000
July:						
Steel:						
Carbon	W	W	--	--	--	W
High-strength low-alloy	W	9,540	--	--	--	9,540
Stainless and heat-resisting	154,000	47,700	--	(3)	W	201,000
Full alloy	246,000	76,600	--	--	W	322,000
Tool	W	W	--	--	--	W
Total	399,000	134,000	--	(3)	--	533,000
Cast irons (gray, malleable, and ductile iron)	--	W	--	--	--	W
Superalloys	--	--	--	(3)	62,400	62,400
Alloys: (other than steels, cast irons, and superalloys)						
Other alloys	189	W	--	--	--	189
Mill products made from metal powder ⁴	--	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	(3)
Catalysts	W	--	(3)	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	9,440	9,440
Other	183,000	51,500	425	(3)	329,000	564,000
Grand total	583,000	185,000	425	(3)	401,000	1,170,000
Stocks, July 31, 2020	498,000	765,000	2,830	(6)	(6)	2,140,000

W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified uses: Other" category. -- Zero.

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

²Includes calcium molybdate.

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

⁴Includes ingot, wire, rod, and sheet.

⁵Includes construction, mining, oil and gas, metalworking machinery.

⁶Withheld 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 LOCALITY¹

(Kilograms, contained molybdenum)

Country or locality	2019			2020		
	January– December	July	January– July	June	July	January– July
Belgium	6,630,000	203,000 ^r	3,550,000 ^r	936,000	680,000	5,410,000
Brazil	15,900	--	14,400	--	--	7,590
Cambodia	--	--	--	--	--	1,440
Canada	1,110,000	106,000	611,000 ^r	66,100	78,500	704,000
Chile	218,000	--	218,000	--	252,000	484,000
China	529,000	36,000	254,000 ^r	16,700	83,300	869,000
Colombia	339	--	339	--	--	--
Estonia	--	--	--	--	--	305,000
Germany	1,090	--	1,090	--	--	285
India	205,000	11,200	74,000	44,900	63,800	274,000
Japan	3,970,000	329,000	2,330,000 ^r	276,000	251,000	2,040,000
Korea, Republic of	3,030,000	348,000 ^r	1,560,000 ^r	409,000	363,000	3,080,000
Mexico	3,050,000	486,000	1,820,000	349,000	384,000	2,300,000
Netherlands	35,900,000	2,180,000	22,400,000	1,410,000	2,880,000	14,600,000
Sri Lanka	1,630	--	--	--	--	--
Taiwan	23,300	--	23,300	--	--	--
Thailand	1,380,000	25,500	164,000	80,900	2,430	714,000
Turkey	--	--	--	--	--	986
United Kingdom	7,550,000	901,000	4,220,000	18,900	36,100	2,650,000
Vietnam	434,000	38,900	201,000	16,200	8,610	195,000
Total	64,100,000	4,660,000 ^r	37,400,000 ^r	3,630,000	5,090,000	33,600,000

^rRevised. -- Zero.

¹Data 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 LOCALITY¹

(Kilograms, contained molybdenum)

Country or locality	2019			2020		
	January– December	July	January– July	June	July	January– July
Australia	1,610	735	1,610	--	--	697
Canada	243,000	16,000	123,000 ^r	32,100	21,100	227,000
China	1,210	--	1,210	--	--	--
Denmark	903	--	903	474	--	948
Mexico	306,000	60,000	202,000	9,070	--	131,000
United Kingdom	420	--	--	--	--	--
Total	552,000	76,700	330,000 ^r	41,600	21,100	360,000

^rRevised. -- Zero.

¹Data 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 PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	January–December 2019			2020					
	Gross weight	Contained molybdenum	Value ² (thousands)	July			January–July		
				Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)
Ore and concentrates, roasted	6,490,000 ^r	4,050,000	\$89,800	191,000	119,000	\$2,030	4,430,000	2,710,000	\$50,800
Ore and concentrates, other	34,400,000 ^r	16,500,000	440,000	1,160,000	547,000	9,950	14,700,000	6,950,000	147,000
Molybdenum chemicals:									
Oxides and hydroxides	4,290,000	NA	89,300 ^r	214,000	NA	3,350	2,130,000	NA	35,000
Molybdates of ammonium	1,400,000	789,000	24,200	63,600	35,800	878	541,000	305,000	7,820
Molybdates (all others)	216,000 ^r	85,600	2,880	NA	NA	NA	68,000	27,000	700
Molybdenum orange	234,000	NA	1,350	8,400	NA	94	77,600	NA	671
Ferromolybdenum	10,400,000	6,990,000	196,000	311,000	213,000	4,270	4,180,000	2,810,000	63,400
Molybdenum powders	238,000	221,000	8,520	2,470	1,690	118	172,000	161,000	5,830
Molybdenum unwrought	595,000	593,000	19,300	44,100	43,800	1,150	354,000	352,000	10,300
Molybdenum waste and scrap	1,900,000 ^r	1,750,000	59,700 ^r	98,700	98,300	2,640	827,000	807,000	24,100
Molybdenum wire	18,400	NA	2,150	675	NA	77	9,110	NA	1,040
Molybdenum other	193,000	NA	18,300	23,000	NA	1,670	113,000	NA	9,860
Total	60,300,000 ^r	XX	951,000 ^r	2,120,000	XX	26,200	27,600,000	XX	357,000

^rRevised. NA Not available. XX Not applicable.

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

²Customs value.

Source: U.S. Census Bureau.