

# Mineral Industry Surveys

---

**For information, contact:**

Désirée E. Polyak, Molybdenum Commodity Specialist  
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:** <http://minerals.usgs.gov/minerals>

## MOLYBDENUM IN AUGUST 2014

Domestic production of molybdenum (Mo) in concentrate in August 2014 was 4% more than the output of the previous month and 12% more than that of August 2013. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 6,600 metric tons (t) at yearend 2013 and about 6,800 t at the end of August.

According to Ryan's Notes, the August monthly average price range for U.S. ferromolybdenum (FeMo) was from \$16.433 to \$17.211 per pound of molybdenum content, compared with \$17.611 to \$18.478 in July. European FeMo monthly averages ranged from \$32.456 to \$32.922 per kilogram (kg) of molybdenum content in August compared with \$32.139 to \$32.967 per kg in July. In August, worldwide molybdenum oxide (MoO<sub>3</sub>) prices ranged from \$13.133 to \$13.633 per pound compared with \$13.433 to \$13.983 per pound in July.

World consumption of molybdenum in the first quarter of 2014 was 61,700 t of Mo, a 7% increase from the same quarter in 2013, according to statistics from the International Molybdenum Association (2014). China was the leading consuming country, using 21,100 t of Mo in the first quarter of 2014, an 11% increase from the same quarter in 2013. Europe

was the second leading consumer, using 16,700 t of Mo, 3% more than the first quarter of 2013 (International Molybdenum Association, 2014).

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

### Reference Cited

International Molybdenum Association, 2014, Molybdenum production and use fall slightly: London, United Kingdom, International Molybdenum Association, August 20. (Accessed December 9, 2014, at <http://www.imoa.info/molybdenum-media-centre/latest-news/latest-news-details.php?objectID=303&lang=en>.)

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

(Metric tons, contained molybdenum)

Period	Production	Shipments <sup>2,3</sup>
2013:		
January–August	41,100	36,000 <sup>r</sup>
August	4,940	4,930
September	5,230	5,090
October	5,070	5,420
November	4,800	4,570
December	4,560	4,850
January–December	60,800	60,900
2014:		
January	5,050	4,960
February <sup>r</sup>	4,640	4,680
March <sup>r</sup>	5,160	5,110
April <sup>r</sup>	5,570	5,580
May <sup>r</sup>	6,530	6,500
June <sup>r</sup>	5,420	5,560
July <sup>r</sup>	5,330	5,520
August	5,520	5,340
January–August	43,200	43,200

<sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>As reported by producers.

<sup>3</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 molybdenum <sup>2</sup>	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
2014:						
July:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,380	--	--	--	7,380
Stainless and heat-resisting	191,000 <sup>r</sup>	55,300 <sup>r</sup>	--	(3)	W	247,000 <sup>r</sup>
Full alloy	295,000 <sup>r</sup>	256,000 <sup>r</sup>	--	--	W	552,000 <sup>r</sup>
Tool	W	W	--	--	--	W
Total	487,000 <sup>r</sup>	319,000 <sup>r</sup>	--	(3)	W	806,000 <sup>r</sup>
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	67,500 <sup>r</sup>	67,500 <sup>r</sup>
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
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)	--	--	W
Catalysts	77,300	--	(3)	--	W	77,300 <sup>r</sup>
Other chemicals	--	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	164,000 <sup>r</sup>	46,400 <sup>r</sup>	287 <sup>r</sup>	(3)	334,000 <sup>r</sup>	544,000 <sup>r</sup>
Grand total	728,000 <sup>r</sup>	366,000 <sup>r</sup>	287 <sup>r</sup>	(3)	412,000 <sup>r</sup>	1,510,000 <sup>r</sup>
Stocks, July 31, 2014	534,000 <sup>r</sup>	331,000 <sup>r</sup>	3,000 <sup>r</sup>	(6)	(6)	1,760,000 <sup>r</sup>
August:						
Steel:						
Carbon	31,400	W	--	--	W	31,400
High-strength low-alloy	W	7,380	--	--	--	7,380
Stainless and heat-resisting	157,000	50,200	--	(3)	W	207,000
Full alloy	273,000	257,000	--	--	W	530,000
Tool	W	W	--	--	--	W
Total	461,000	314,000	--	(3)	W	775,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	67,400	67,400
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	243	W	--	--	--	243
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)	--	--	W
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	102,000	48,700	287	(3)	305,000	456,000
Grand total	641,000	363,000	287	(3)	383,000	1,390,000
Stocks, August 31, 2014	580,000	340,000	2,990	(6)	(6)	1,800,000

<sup>1</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified uses: Other" category. -- Zero.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Includes calcium molybdate.

<sup>4</sup>Withheld to avoid disclosing company proprietary data; included in "Other, Miscellaneous and unspecified uses: Other" category.

<sup>5</sup>Includes ingot, wire, rod, and sheet.

<sup>6</sup>Includes construction, mining, oil and gas, metalworking machinery.

<sup>7</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<sup>1</sup>

(Kilograms, contained molybdenum)

Country	2013			2014		
	January– December	August	January– August	July	August	January– August
Antigua and Barbuda	--	--	--	--	--	22,400
Argentina	--	--	--	--	--	5,110
Australia	214,000	--	214,000	--	--	--
Austria	31,800	--	31,800	--	--	--
Belgium	3,770,000	229,000	2,010,000	846,000	2,120,000	5,430,000
Brazil	690,000	87,400	540,000	74,600	75,900	287,000
Canada	2,070,000	230,000	1,400,000	255,000	193,000	1,610,000
Chile	--	--	--	275,000	556,000	831,000
China	1,520,000	207,000	762,000	54,000	140,000	795,000
Germany	172,000	--	172,000	--	--	89
India	1,310,000	117,000	939,000	30,500	31,300	363,000
Israel	--	--	--	--	--	795
Japan	4,900,000	424,000	2,890,000	592,000	580,000	4,310,000
Korea, Republic of	898,000	94,300	663,000	73,800	97,300	968,000
Mexico	9,160,000	723,000	6,160,000	931,000	818,000	5,030,000
Netherlands	21,100,000	1,580,000	14,300,000	1,890,000	1,640,000	11,300,000
Peru	24,700	--	18,500	--	--	--
Philippines	2,180	--	2,180	--	--	--
Singapore	1,370	--	1,370	--	--	--
South Africa	194,000	--	154,000	--	--	--
Taiwan	24,900	--	24,900	--	9,010	9,010
Thailand	46,700	--	37,000	--	--	13,300
United Kingdom	2,380,000	32,600	1,510,000	390,000	797,000	7,630,000
Venezuela	210	--	--	--	--	--
Vietnam	57,100	80	42,500	13,200	7,000	56,800
Total	48,600,000	3,720,000	31,800,000	5,430,000	7,060,000	38,700,000

-- 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<sup>1</sup>

(Kilograms, contained molybdenum)

Country	2013			2014		
	January– December	August	January– August	July	August	January– August
Argentina	382	--	--	--	--	--
Canada	635,000	60,300	465,000	65,900	40,400	408,000
Chile	1,480	--	--	--	--	--
Colombia	238	--	119	--	--	267
Denmark	513	171	342	--	--	171
Israel	168	--	168	--	--	--
Mexico	156,000	12,700	86,700	318	318	26,500
Netherlands	48,600	--	48,600	--	--	--
Panama	13,200	--	13,200	--	--	--
Peru	6,550	--	6,000	--	--	--
Vietnam	--	--	--	135	135	135
Total	862,000	73,300	620,000	66,300	40,800	435,000

-- 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 5  
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS<sup>1</sup>

(Kilograms, unless otherwise specified)

Material	January–December 2013			August 2014			January–August 2014		
	Gross weight	Contained molybdenum	Value <sup>2</sup> (thousands)	Gross weight	Contained molybdenum	Value <sup>2</sup> (thousands)	Gross weight	Contained molybdenum	Value <sup>2</sup> (thousands)
Ore and concentrates roasted	6,870,000	4,160,000	\$47,100	622,000	380,000	\$10,400	4,880,000	2,990,000	\$70,100
Ore and concentrates other	18,100,000	8,890,000	250,000	1,850,000	991,000	27,400	13,100,000	6,700,000	184,000
Molybdenum chemicals:									
Oxides and hydroxides	283,000	NA	5,390	19,800	--	480	290,000	NA	5,360
Molybdates of ammonium	1,080,000	611,000	17,000	79,400	44,800	1,490	664,000	374,000	11,300
Molybdates (all others)	3,770	1,550	190	8,140	3,230	120	13,700	5,450	193
Molybdenum orange	274,000	NA	2,430	25,900	--	251	261,000	NA	2,070
Ferromolybdenum	6,120,000	4,090,000	108,000	665,000	444,000	14,400	4,870,000	3,250,000	95,100
Molybdenum powders	448,000	433,000	16,000	61,600	59,300	2,560	353,000	336,000	13,000
Molybdenum unwrought	762,000	747,000	22,100	138,000	137,000	4,770	868,000	843,000	23,700
Molybdenum waste and scrap	739,000	690,000	21,900	124,000	121,000	3,900	899,000	881,000	26,900
Molybdenum wire	22,700	NA	3,490	1,230	--	230	10,200	NA	1,660
Molybdenum other	298,000	NA	20,800	15,900	--	1,680	298,000	NA	19,500
Total	35,000,000	XX	514,000	3,610,000	2,180,000	67,800	26,500,000	XX	453,000

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.

Source: U.S. Census Bureau.