

Mineral Industry Surveys

For information, contact:

Lisa A. Corathers, Manganese Commodity Specialist National Minerals Information Center U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4973, Fax: (703) 648-7757

Email: lcorathers@usgs.gov

Hodan A. Fatah (Data) Telephone: (703) 648-4971 Fax: (703) 648-7975 Email: hfatah@usgs.gov

Internet: https://www.usgs.gov/centers/nmic

MANGANESE IN OCTOBER 2018

Preliminary data for October 2018 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 27,800 metric tons (t) (gross weight). This was 3% less than the amount consumed in September 2018 (28,800 t) (fig. 1). Manganese ore consumption in the first 10 months of 2018 was 305,000 t (includes revisions during the reporting period); this was about 4% less than that during the same period in 2017 (317,000 t) (fig. 1). Industry stocks of ore at the end of October 2018 were estimated to be 202,000 t, 24% more than the amount at the end of September 2018 (162,000 t).

On a gross-weight basis, U.S. imports of manganese ore in October 2018 were 1,510 t, 98% less than 95,500 t imported in September 2018 (fig. 1, table 5).

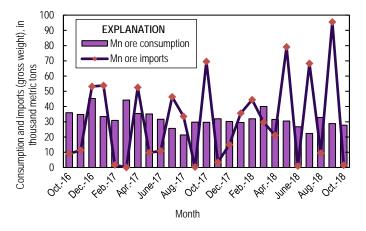


Figure 1. Monthly domestic consumption and imports of manganese (Mn) ore from October 2016 through October 2018. Sources: U.S. Census Bureau and U.S. Geological Survey.

In October 2018, the average spot prices for manganese ore deliveries to China were \$6.70 per metric ton unit, 36%–39% grade, and \$7.01 per metric ton unit, 44% grade (fig. 2, table 1). Compared with September 2018 prices, they were 3% more for the 36%–39% grade and unchanged for the 44% grade. Compared with the 2-year price highs of December 2016, they were 16% lower for the 36%–39% grade and 21% lower for the 44% grade. However, they were both about 11% to 12% higher than those of October 2016.

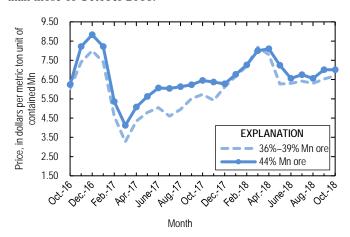


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from October 2016 through October 2018. Source: CRU Group.

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.

 ${\it TABLE~1}$ PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN OCTOBER 2018

		Low	Average	High
Manganese ferroalloys: ¹				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,360.00	1,382.00	1,420.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	112.00	113.40	115.00
Silicomanganese, 65% manganese	do.	60.00	61.50	63.00
Manganese metal, 99.9% manganese flake ²	cents per pound	165.00	168.61	175.00
Manganese ore: ^{3, 4}				
36%–39% manganese	dollars per metric ton unit contained manganese	6.60	6.70	6.85
44% manganese	do.	6.75	7.01	7.25

do. Ditto.

¹Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

²CRU Group North American transaction prices, electrolytic manganese metal flake, 99.99% manganese, free-on-board producing point or Chicago/Pittsburgh warehouse; Average prices reported for the price range.

³CRU Group, cost and freight, China; average prices reported for the price range.

⁴To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 44 when the manganese content is 44%.

 $\label{eq:table 2} \textbf{TABLE 2}$ SELECTED U.S. FOREIGN TRADE IN MANGANESE 1

(Metric tons, manganese content)²

	Imp	orts for consumpt	ion	Exports			
	Ore and	Ferroalloy		Ferroalloy			
	dioxide	and metal	Total	Ore	and metal	Total	
2017:							
October	31,200	63,900	95,200	25	1,890	1,920	
January-October	165,000	451,000	615,000	540	14,000 ^r	14,600 ^r	
2018:							
January	17,300	66,800	84,000	18	221	239	
February	23,200	34,700	57,900	48	806	853	
March	10,600	59,300	69,900	26	993	1,020	
April	10,500	41,700	52,200	16	1,250	1,260	
May	36,500	67,700	104,000	30	1,240	1,270	
June	754	56,800	57,500	30	1,800	1,830	
July	32,900	35,900	68,800	1,180	1,740	2,910	
August	5,240	84,100	89,300	38	1,350	1,380	
September	40,600	33,700	74,300	35	1,080	1,110	
October	1,110	37,600	38,700	16	1,420	1,440	
January-October	179,000	518,000	697,000	1,430	11,900	13,300	

rRevised.

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

²As reported except as estimated for imports of manganese dioxide (60%), manganese metal (100%), and manganese waste and scrap (50%). Manganese contained in exports are estimated from reported gross weights, as follows: ferromanganese (79%), manganese dioxide (60%), manganese metal (100%), manganese ore (50%), and silicomanganese (66%).

 ${\it TABLE~3} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~SILICOMANGANESE~IN~OCTOBER~2018}^1$

(Metric tons)

				January–October ²				
	Gross	Mn	Customs	Gross	Mn	Customs		
Source	weight	content	value ³	weight	content	value ³		
Australia				68,200	43,900	\$85,500,000		
Belgium				1,890	1,240	2,300,000		
Brazil				3,270	2,170	3,440,000		
Georgia	1,850	1,350	\$2,200,000	86,100	62,700	104,000,000		
India				1,820	1,070	2,640,000		
Malaysia				22,500	14,600	26,700,000		
Mexico	1,820	1,190	2,080,000	20,500	13,600	23,400,000		
Norway	800	466	1,270,000	15,700	10,200	22,500,000		
Russia				8,960	5,990	11,300,000		
Saudi Arabia	4,020	2,670	5,280,000	9,030	5,970	10,100,000		
South Africa	6,500	4,230	7,150,000	57,000	37,100	62,800,000		
Spain	2,170	1,280	3,000,000	20,500	13,300	26,300,000		
Taiwan				200	132	237,000		
Zambia				999	650	1,230,000		
Total	17,100	11,200	21,000,000	317,000	213,000	382,000,000		

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²May include revised data that are not broken out by specific month(s).

³Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN OCTOBER $2018^{\rm 1}$

(Metric tons)

				January–October ²		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ³	weight	content	value ³
Low carbon:						
China	592	553	\$1,370,000	4,270	3,990	\$9,310,000
France				19	15	58,900
Germany				264	233	657,000
Japan				100	80	165,000
Korea, Republic of	1,000	924	2,660,000	9,190	8,450	20,500,000
Mexico	38	31	95,300	3,080	2,500	4,650,000
Norway	2,400	1,950	4,090,000	37,400	30,300	62,900,000
South Africa	27	25	47,000	212	186	355,000
Vietnam				240	216	529,000
Total	4,060	3,480	8,260,000	54,800	46,000	99,100,000
Medium carbon, 1%–2% C:		·			•	
China				145	119	319,000
France				2,900	2,360	4,600,000
Korea, Republic of	1,500	1,200	2,540,000	27,000	21,600	43,300,000
Mexico	618	485	1,010,000	5,320	4,200	8,620,000
Norway	1,950	1,590	3,050,000	17,600	14,300	27,200,000
South Africa	5,810	4,670	7,630,000	31,800	25,600	51,900,000
Total	9,870	7,940	14,200,000	84,800	68,200	136,000,000
High carbon:		· · · · · · · · · · · · · · · · · · ·	<u> </u>		<u> </u>	
Australia				59,100	45,000	75,100,000
Brazil				3,240	2,010	3,680,000
Canada	20	8	34,400	20	8	34,400
France			,	2,200	1,680	2,470,000
Georgia				3,100	2,410	3,930,000
India				4,850	1,710	5,640,000
Korea, Republic of	2,000	1,520	2,230,000	5,840	4,440	8,290,000
Malaysia	7,700	5,850	9,940,000	48,700	37,000	62,200,000
Mexico				115	92	169,000
Norway				3,090	2,390	3,870,000
Russia	4,160	3,170	4,130,000	28,100	21,400	27,500,000
Saudi Arabia	20	13	33,700	356	226	566,000
South Africa	3,830	2,940	5,150,000	41,200	31,300	54,600,000
Spain		-,-		18,700	14,200	22,800,000
Ukraine	340	256	316,000	6,580	5,020	6,540,000
Total	18,100	13,800	21,800,000	225,000	169,000	277,000,000
Grand total	32,000	25,200	44,300,000	365,000	283,000	512,000,000

⁻⁻ Zero.

 $^{^{1}\}mbox{Data}$ rounded to no more than three significant digits; may not add to totals shown.

²May include revised data that are not broken out by specific month(s).
³Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the material into the United States.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN OCTOBER $2018^{\rm l}$

(Metric tons)

					January–October ²		
	Gross	Mn	Customs	Gross	Mn	Customs	
Source	weight	content	value ³	weight	content	value ³	
More than 20%, but less than 47% manganese:							
Cote d'Ivoire				27	12	\$11,000	
Gabon				9,610	4,130	1,910,000	
Mexico				15,500	5,450	3,560,000	
South Africa				103,000	34,600	19,600,000	
Turkey				57	26	27,700	
Total				129,000	44,200	25,100,000	
47% or more manganese:							
Australia				13,500	6,430	5,220,000	
Brazil	1,410	734	\$444,000	2,270	1,250	902,000	
China				2	2	4,400	
Gabon				231,000	119,000	71,500,000	
Mexico	95	65	80,100	7,620	3,890	2,470,000	
Morocco				116	66	153,000	
South Africa				2,520	1,220	1,070,000	
Turkey				361	263	175,000	
Total	1,510	799	524,000	257,000	132,000	81,500,000	
Grand total	1,510	799	524,000	386,000	176,000	107,000,000	

⁻⁻ Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

${\it TABLE~6} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~DIOXIDE} \\ {\it IN~OCTOBER~2018}^1 \\$

(Metric tons, gross weight)

			January-	-October ²
		Customs		Customs
Source	Quantity	value ³	Quantity	value ³
Belgium			59	\$158,000
Brazil	11	\$18,000	32	54,100
China			71	160,000
France			14	23,800
Germany			25	42,200
India	(4)	2,210	5	15,700
Japan	504	1,120,000	4,340	9,730,000
Mexico			(4)	2,210
Morocco			19	86,600
Spain			60	102,000
Ukraine			23	38,700
Total	515	1,140,000	4,650	10,400,000

⁻⁻ Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

⁴Less than ½ unit.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN OCTOBER 20181

(Metric tons)

			January	–October ²
	Gross	Customs	Gross	Customs
Source	weight	value ³	weight	value ³
Unwrought flake:	<u></u>			
China	25	\$48,600	3,710	\$6,470,000
Gabon	6	14,700	6	14,700
Hong Kong			102	263,000
Japan	(4)	355,000	153	2,380,000
Latvia	10	27,500	10	27,500
Mexico	20	69,900	20	69,900
Netherlands			1	2,900
South Africa	184	603,000	3,360	7,910,000
Vietnam			100	221,000
Total	245	1,120,000	7,460	17,400,000
Unwrought powder:				
China			97	216,000
Mexico	8	29,900	187	620,000
South Africa	121	353,000	1,110	3,020,000
Total	129	383,000	1,390	3,850,000
Unwrought, other:				
China	677	1,960,000	11,100	22,400,000
Germany	98	235,000	1,140	2,460,000
New Zealand			(4)	2,040
Poland			(4)	6,310
South Africa	61	139,000	696	1,610,000
Spain			3	4,280
Total	836	2,340,000	12,900	26,500,000
Other manganese, wrought:				
China	6	3,830	28	56,600
France			(4)	2,150
Germany	33	388,000	276	3,190,000
India			(4)	5,640
Japan			(4)	163,000
Malaysia			(4)	3,040
Mexico			94	275,000
Poland			(4)	9,250
Sweden			9	85,600
Total	39	392,000	409	3,790,000
Metallic waste and scrap, Canada			285	94,500
Grand total	1,250	4,230,000	22,500	51,600,000

 $^{^{1}\}mathrm{Data}$ rounded to no more than three significant digits; may not add to totals shown.

²May include revised data that are not broken out by specific month(s).
³Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

⁴Less than ½ unit.

TABLE~8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OR LOCALITIES OF DESTINATION IN OCTOBER 2018 1,2

			January-October ³		
		F.a.s. ⁴		F.a.s. ⁴	
	Gross weight	value	Gross weight	value	
Source	(metric tons)	(thousands)	(metric tons)	(thousands)	
Ore and concentrates with 20% or more manganese:					
Canada	24	\$22	318	\$310	
Mexico			2,330	1,930	
Netherlands			166	768	
Other [3 countries and (or) localities]	7	7	45	165	
Total	32	29	2,860	3,170	
Ferromanganese:					
2% or less carbon:					
Canada	19	32	739	1,270	
Mexico	<u> </u>		41	110	
Morocco	<u> </u>		4	8	
Taiwan	<u> </u>		21	40	
Other [2 countries and (or) localities]	<u> </u>		5	18	
Total	19	32	810	1,450	
More than 2% carbon:					
Canada	983	1,250	6,920	9,500	
Costa Rica	<u> </u>		4	18	
Mexico	<u> </u>		105	100	
United Kingdom			23	65	
Other [4 countries and (or) localities]	<u> </u>		7	20	
Total	983	1,250	7,060	9,700	
Silicomanganese:					
Canada	208	304	3,240	4,610	
Ecuador	125	162	125	162	
Mexico	<u> </u>		2	3	
Total	333	466	3,370	4,770	
Metal, including alloys and waste and scrap: ⁵	-				
Canada	1	4	13	51	
China	<u> </u>		5	75	
France	<u> </u>		9	36	
India	<u> </u>		218	241	
Japan			83	303	
Malaysia	405	219	2,690	1,450	
Mexico	7	34	158	1,190	
Norway			10	472	
Pakistan			40	10	
South Africa			216	184	
Venezuela			7	6	
Other [8 countries and (or) localities]	(6)	5	5	96	
Total	412	262	3,450	4,110	
Grand total	1,780	2,040	17,500	23,200	

⁻⁻ Zero

¹Presentation of monthly data is based on the "January-October" quantities of the leading countries and (or) localities.

²Data rounded to no more than three significant digits; may not add to totals shown.

³May include revised data that are not broken out by specific month(s).

⁴Free alongside ship.

⁵Includes manganese-aluminum, other alloys, and waste and scrap.

⁶Less than ½ unit.

TABLE 9 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2018, BY CLASS¹

					y–October ²	
			Principal sources	-		Principal sources
			and destinations:			and destinations:
	Gross weight	Value ³	gross weight (metric tons);	Gross weight	Value ³	gross weight (metric tons);
Class	(metric tons)	(thousands)	value ³ (thousands)	(metric tons)	(thousands)	value ³ (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	2,910	\$1,910	South Africa 1,690; \$971	28,600	\$23,100	South Africa 14,000; \$8,680
Manganites, manganates, and other permanganates	(4)	4	Canada (4); \$4	20	54	Hong Kong 20; \$42
Potassium permanganate	135	346	India 135; \$346	1,270	3,320	India 1,240; \$3,240
Sodium permanganate	76	161	China 76; \$161	1,250	2,800	China 1,230; \$2,760
Sulfates, basket category, including manganese sulfate	4,700	4,020	Mexico 1,950; \$1,560	56,600	46,700	China 23,500; \$18,000
Exports:	<u></u>					
Manganese dioxide	668	935	Canada 523; \$458	6,430	9,170	Canada 4,230; \$3,680
Manganese oxides other than dioxide	603	1,460	China 144; \$183	5,490	10,400	Poland 912; \$1,240
Manganites, manganates, and other permanganates	20	53	Mexico 18; \$49	195	685	Mexico 152; \$585
Potassium permanganate	289	909	Belgium 162; \$400	2,830	8,220	Belgium 1,290; \$3,150
Sodium permanganate	65	169	Belgium 39; \$81	714	2,350	Belgium 248; \$504
Sulfates, basket category, including manganese sulfate	1,910	3,860	Canada 1,090; \$1,140	17,400	27,600	Canada 12,200; \$9,890

Data are rounded to no more than three significant digits.

May include revised data that are not broken out by specific month(s).

For imports, customs value; for exports, free alongside ship value.

⁴Less than ½ unit.