

# Mineral Industry Surveys

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## MANGANESE IN AUGUST 2019

On a gross-weight basis, U.S. imports of manganese ore in August 2019 increased to 57,500 metric tons (t) from 6,820 t in July 2019 (fig. 1, table 5). Imports for the year through August totaled 228,000 t, 21% less compared with imports in the same period in 2018.

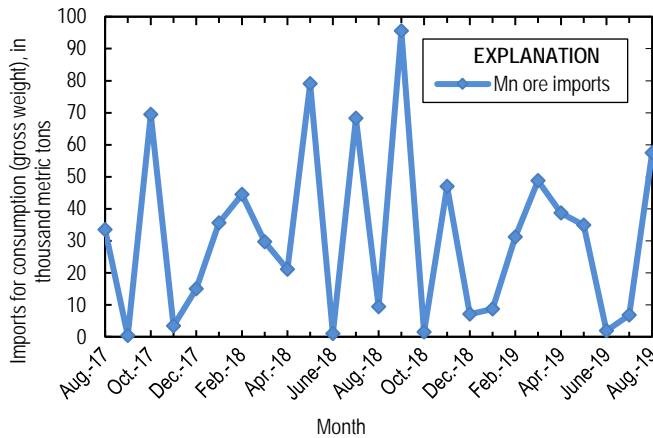


Figure 1. Monthly imports of manganese (Mn) ore from August 2017 through August 2019. Source: U.S. Census Bureau.

In August 2019, the average spot prices for manganese ore deliveries to China were \$5.28 per metric ton unit, 36%–39% grade, and \$5.75 per metric ton unit, 44% grade (fig. 2, table 1). Compared with July 2019 prices, the 36%–39%-grade price was 4% less and the 44%-grade price was unchanged. Compared with the monthly average prices in August 2018, the 36%–39%-

grade price was 17% less and the 44%-grade price was 15% less.

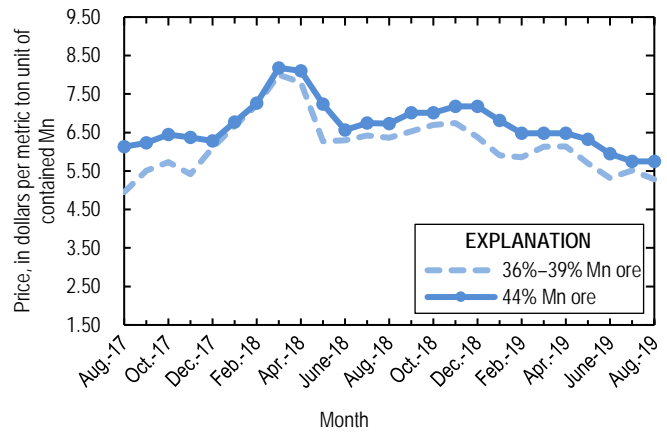


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from August 2017 through August 2019. Source: CRU Group.

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TABLE 1  
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN AUGUST 2019

		Low	Average	High
<b>Manganese ferroalloys:<sup>1</sup></b>				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,330.00	1,385.00	1,440.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	112.00	113.00	114.00
Silicomanganese, 65% manganese	do.	63.00	64.38	65.75
Manganese metal, 99.7% manganese flake <sup>2</sup>	cents per pound	100.00	112.50	120.00
<b>Manganese ore:<sup>3, 4</sup></b>				
36%–39% manganese	dollars per metric ton unit contained manganese	5.00	5.28	5.45
44% manganese	do.	5.65	5.75	5.85

do. Ditto.

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

<sup>2</sup>CRU Ryan's Notes North American transaction prices, electrolytic manganese metal flake, 99.7% manganese, ex-works; average prices reported for the price range.

<sup>3</sup>CRU Ryan's Notes, cost and freight, China; average prices reported for the price range.

<sup>4</sup>To 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%.

TABLE 2  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons, manganese content)<sup>2</sup>

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2018:						
August	5,240	84,100	89,300	37	1,360 <sup>r</sup>	1,400 <sup>r</sup>
January–August	137,000	448,000 <sup>r</sup>	585,000 <sup>r</sup>	1,380	9,220 <sup>r</sup>	10,600 <sup>r</sup>
2019:						
January	4,670	27,000	31,600	19	1,690	1,710
February	12,300	66,700	79,100	94	1,840	1,930
March	25,600	55,700	81,300	45	1,330	1,370
April	27,000	46,300	73,400	20	1,140	1,160
May	17,500	59,300	76,800	27	1,090	1,120
June	924	50,800	51,700	31	946	977
July	3,400	28,800	32,200	96	1,610	1,700
August	30,500	52,900	83,400	11	1,260	1,270
January–August	122,000	387,000	509,000	342	10,900	11,200

<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>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN AUGUST 2019<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	January–August <sup>2</sup>		
				Gross weight	Mn content	Customs value <sup>3</sup>
Australia	--	--	--	38,500	25,500	\$48,500,000
Brazil	--	--	--	631	413	639,000
Georgia	8,440	6,300	\$10,600,000	66,600	49,400	82,900,000
India	--	--	--	267	157	388,000
Malaysia	6,440	4,190	6,590,000	22,900	14,900	23,900,000
Mexico	3,160	2,050	3,180,000	18,000	11,700	19,800,000
Norway	3,050	1,830	4,230,000	32,900	21,800	39,200,000
Russia	--	--	--	1	1	2,720
Saudi Arabia	4,440	2,790	4,360,000	4,550	2,870	4,470,000
South Africa	7,800	5,070	8,580,000	57,200	37,200	62,900,000
Spain	1,500	977	1,710,000	6,010	3,890	7,000,000
Thailand	--	--	--	25	9	38,800
Zambia	--	--	--	140	92	106,000
Total	34,800	23,200	39,300,000	248,000	168,000	290,000,000

-- Zero.

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

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

<sup>3</sup>Customs 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.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST 2019<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	January–August <sup>2</sup>		
				Gross weight	Mn content	Customs value <sup>3</sup>
<b>Low carbon:</b>						
China	--	--	--	927	871	\$1,810,000
Germany	--	--	--	237	220	594,000
Japan	96	75	\$164,000	769	605	1,320,000
Korea, Republic of	2,810	2,410	5,190,000	10,000	8,720	19,800,000
Mexico	38	31	92,400	2,220	1,750	3,900,000
Norway	3,300	2,670	5,620,000	30,100	24,400	51,100,000
South Africa	145	118	230,000	525	440	852,000
Spain	1,000	802	1,600,000	6,990	5,650	11,500,000
Vietnam	--	--	--	1	1	3,220
Total	7,390	6,100	12,900,000	51,800	42,600	90,800,000
<b>Medium carbon, 1%–2% C:</b>						
China	--	--	--	21	16	28,000
India	--	--	--	228	181	376,000
Korea, Republic of	2,500	2,000	4,130,000	12,400	9,880	20,000,000
Malaysia	--	--	--	21	16	30,700
Mexico	77	61	161,000	3,830	2,980	6,170,000
Norway	1,800	1,460	2,760,000	9,700	7,900	14,700,000
South Africa	5,190	4,150	9,070,000	18,000	14,400	31,300,000
Spain	--	--	--	300	242	488,000
Total	9,570	7,680	16,100,000	44,500	35,600	73,100,000
<b>High carbon:</b>						
Australia	--	--	--	58,900	45,000	65,600,000
Brazil	--	--	--	1,320	949	1,430,000
France	989	757	1,060,000	1,790	1,370	1,980,000
India	250	191	279,000	450	342	520,000
Korea, Republic of	--	--	--	1,600	1,230	1,940,000
Malaysia	5,100	3,870	4,460,000	35,100	26,600	31,700,000
Mexico	--	--	--	10	7	16,300
Norway	470	365	573,000	776	602	945,000
Russia	4,700	3,600	4,220,000	24,300	18,500	21,700,000
Saudi Arabia	--	--	--	60	44	98,200
South Africa	7,380	5,630	8,240,000	19,600	14,900	22,300,000
Spain	19	14	38,700	19	14	38,700
Ukraine	203	155	181,000	5,740	4,370	5,060,000
Total	19,100	14,600	19,000,000	150,000	114,000	153,000,000
Grand total	36,100	28,400	48,100,000	246,000	192,000	317,000,000

-- Zero.

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

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

<sup>3</sup>Customs 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.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn)  
IN AUGUST 2019<sup>1</sup>

Source	(Metric tons)			January–August <sup>2</sup>		
	Gross weight	Mn content	Customs value <sup>3</sup>	Gross weight	Mn content	Customs value <sup>3</sup>
<b>More than 20%, but less than 47% manganese:</b>						
Brazil	9,410	4,120	\$1,900,000	9,410	4,120	\$1,900,000
China	--	--	--	7	3	3,600
Mexico	10,300	3,950	2,210,000	18,500	7,000	3,970,000
South Africa	2,810	1,210	687,000	34,100	13,100	8,770,000
Total	22,500	9,270	4,790,000	62,000	24,200	14,600,000
<b>47% or more manganese:</b>						
Brazil	100	72	47,000	564	306	430,000
Gabon	34,700	20,800	10,600,000	165,000	94,900	55,300,000
Morocco	--	--	--	77	44	102,000
South Africa	200	97	87,800	1,080	522	462,000
Turkey	--	--	--	4	3	2,380
Total	35,000	20,900	10,700,000	166,000	95,800	56,300,000
Grand total	57,500	30,200	15,500,000	228,000	120,000	70,900,000

-- Zero.

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

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

<sup>3</sup>Customs 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.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE  
IN AUGUST 2019<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>3</sup>	January–August <sup>2</sup>	
			Quantity	Customs value <sup>3</sup>
Belgium	19	\$86,600	37	\$173,000
Brazil	19	21,800	104	155,000
China	15	34,200	51	119,000
Germany	--	--	20	101,000
Greece	99	226,000	272	719,000
India	37	69,200	54	99,200
Japan	286	654,000	2,410	5,340,000
Morocco	84	142,000	166	282,000
Slovakia	--	--	13	22,500
Total	558	1,230,000	3,130	7,010,000

-- Zero.

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

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

<sup>3</sup>Customs 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.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL  
IN AUGUST 2019<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>3</sup>	January–August <sup>2</sup>	
			Gross weight	Customs value <sup>3</sup>
<b>Unwrought flake:</b>				
China	222	\$503,000	5,810	\$11,600,000
Gabon	--	--	50	122,000
Hong Kong	--	--	33	66,300
Japan	(4)	189,000	2	1,610,000
Mexico	--	--	6	24,500
South Africa	338	897,000	2,980	7,850,000
Total	560	1,590,000	8,880	21,300,000
<b>Unwrought powder:</b>				
China	--	--	79	182,000
Mexico	4	13,400	143	546,000
South Africa	99	294,000	904	2,560,000
Total	103	307,000	1,130	3,290,000
<b>Unwrought, other:</b>				
Belgium	--	--	23	50,400
China	308	605,000	14,200	28,700,000
Germany	77	178,000	1,490	3,520,000
Japan	--	--	(4)	6,260
Poland	--	--	(4)	6,310
South Africa	67	172,000	699	1,800,000
Spain	11	18,200	143	245,000
Total	463	973,000	16,600	34,300,000
<b>Other manganese, wrought:</b>				
Austria	--	--	(4)	6,040
China	--	--	(4)	27,300
Germany	17	220,000	260	3,170,000
Japan	--	--	(4)	47,900
Korea, Republic of	(4)	51,000	(4)	51,000
Mexico	119	314,000	439	1,270,000
Sweden	3	33,000	4	56,300
United Kingdom	--	--	(4)	2,090
Total	139	618,000	703	4,630,000
Metallic waste and scrap, Canada	33	10,500	294	89,700
Grand total	1,300	3,500,000	27,600	63,700,000

-- Zero.

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

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

<sup>3</sup>Customs 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.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.



TABLE 8  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OR LOCALITY OF DESTINATION  
IN AUGUST 2019<sup>1,2</sup>

Source	Gross weight (metric tons)	F.a.s. <sup>4</sup> value (thousands)	January–August <sup>3</sup>	
			Gross weight (metric tons)	F.a.s. <sup>4</sup> value (thousands)
<b>Ore and concentrates with 20% or more manganese:</b>				
Bahamas	--	--	6	\$6
Canada	10	\$8	289	277
India	--	--	(5)	5
Mexico	--	--	14	13
Netherlands	--	--	290	564
Singapore	13	12	86	132
Total	22	20	685	997
<b>Ferromanganese:</b>				
2% or less carbon:				
Canada	--	--	1,120	2,000
China	--	--	28	54
Taiwan	--	--	6	11
United Kingdom	--	--	29	55
Other [5 countries and (or) localities]	--	--	26	49
Total	--	--	1,210	2,170
More than 2% carbon:				
Canada	40	52	3,550	4,560
China	--	--	16	46
Hong Kong	--	--	1	3
United Kingdom	--	--	26	73
Total	40	52	3,600	4,680
<b>Silicomanganese:</b>				
Canada	499	564	639	736
Mexico	--	--	4	9
Total	499	564	643	746
<b>Metal, including alloys and waste and scrap:<sup>6</sup></b>				
Australia	--	--	8	8
Brazil	--	--	(5)	8
Canada	6	30	67	264
Costa Rica	(5)	6	1	34
Germany	--	--	1	8
Guatemala	--	--	2	19
Guyana	--	--	4	13
Hungary	--	--	(5)	4
India	--	--	139	78
Japan	(5)	3	85	319
Malaysia	843	500	5,390	2,790
Mexico	1	22	42	376
New Zealand	--	--	(5)	5
Norway	--	--	17	67
Pakistan	42	12	900	263
Other [6 countries and (or) localities]	3	13	15	73
Total	894	587	6,670	4,330
Grand total	1,460	1,220	12,800	12,900

-- Zero.

<sup>1</sup>Presentation of monthly data is based on the "January–August" quantities of the leading countries.

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

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

<sup>4</sup>Free alongside ship.

<sup>5</sup>Less than ½ unit.

<sup>6</sup>Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS  
IN AUGUST 2019, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)	January–August <sup>2</sup>		
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	1,100	\$769	Brazil 435; \$305	11,000	\$8,040	South Africa 4,720; \$2,850
Manganites, manganates, and other permanganates	--	--	--	38	90	China 38; \$87
Potassium permanganate	126	299	India 126; \$299	815	2,040	India 808; \$2,010
Sodium permanganate	94	183	China 94; \$183	612	1,330	China 593; \$1,280
Sulfates, basket category, including manganese sulfate	4,600	3,640	Mexico 1,682; \$1,450	35,200	30,600	Mexico 14,900; \$11,200
<b>Exports:</b>						
Manganese dioxide	698	827	Canada 306; \$281	3,960	6,460	Canada 1,980; \$1,880
Manganese oxides other than dioxide	325	642	Russia 80; \$117	3,260	6,230	Poland 541; \$710
Manganites, manganates, and other permanganates	13	57	Canada 11; \$22	126	397	Canada 84; \$167
Potassium permanganate	191	626	Belgium 72; \$175	2,440	6,860	Belgium 1,050; \$2,540
Sodium permanganate	69	187	Belgium 57; \$124	516	1,270	Belgium 344; \$744
Sulfates, basket category, including manganese sulfate	3,060	2,960	Canada 2,670; \$1,150	16,900	24,300	Canada 13,000; \$7,680

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

<sup>2</sup>For imports, customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.