

Mineral Industry Surveys

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MANGANESE IN DECEMBER 2017

Preliminary data for December 2017 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 30,200 metric tons (t) (gross weight). This was 5% less than the amount consumed in November 2017 (32,000 t) (fig. 1). Manganese ore consumption during 2017 was 379,000 t, which was about 8% less the amount consumed during 2016. Industry stocks of ore at the end of December 2017 were estimated to be 148,000 t, 9% less than the revised amount at the end of November 2017 (164,000 t).

On a gross-weight basis, U.S. imports of manganese ore in December 2017 were 15,000 t, up from 3,400 t in November 2017 (fig. 1, table 5).

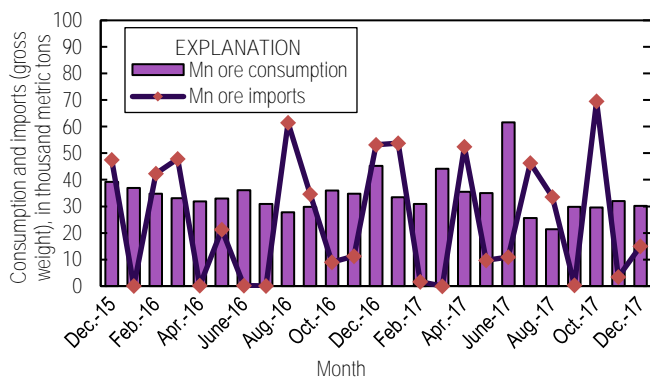


Figure 1. Monthly domestic consumption and imports of manganese (Mn) ore from December 2015 through December 2017. Sources: U.S. Census Bureau and U.S. Geological Survey.

In December 2017, the average spot prices for manganese ore deliveries to China were 6.11 dollars per metric ton unit, 36%–39% grade and 6.28 dollars per metric ton unit, 44% grade (fig. 2, table 1). Compared to November 2017, they were 13% more for the 36%–39% grade and slightly less for the 44% grade. Compared to the 2-year high prices of December 2016, they were 24% less for the 36%–39% grade and 29% less for the 44% grade. However, they were 238% and 191% higher, respectively, than those of December 2015.

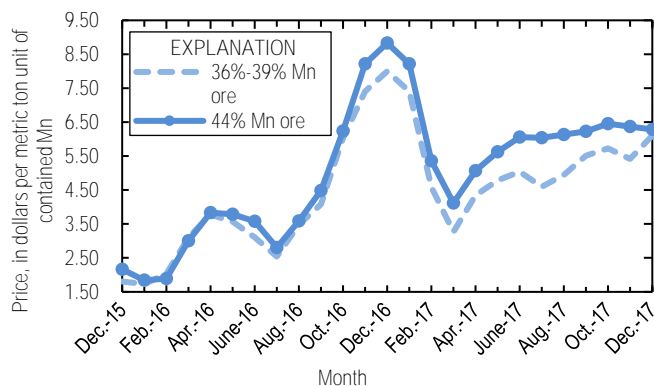


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from December 2015 through December 2017. Source: CRU Group.

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TABLE 1
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN DECEMBER 2017

		Low	Average	High
Manganese ferroalloys:¹				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,480.00	1,503.75	1,530.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	110.00	112.50	115.00
Silicomanganese, 65% manganese	do.	60.00	62.00	64.00
Manganese metal, 99.9% manganese flake ²	cents per pound	103.00	105.00	107.00
Manganese ore:^{3,4}				
36%–39% manganese	dollars per metric ton unit contained manganese	5.80	6.11	6.60
44% manganese	do.	6.00	6.28	6.70

do. Ditto.

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

²CRU Ryan's Notes 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 Ryan's Notes, 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%.

TABLE 2
SELECTED U.S. FOREIGN TRADE IN MANGANESE¹

(Metric tons, manganese content)²

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2016:						
December	26,300	21,700 ^r	48,000	68	977 ^r	1,050 ^r
January–December	143,000 ^r	373,000 ^r	516,000 ^r	315 ^r	13,200	13,600 ^r
2017:						
January	27,700	33,200	60,900	9	901	910
February	1,120	20,500	21,600	15	2,020	2,040
March	477	21,600	22,100	28	2,160	2,180
April	42,300	59,500	102,000	10	1,990	2,000
May	5,030	53,300	58,400	43	1,240	1,280
June	10,300	44,800	55,100	139	905	1,040
July	27,800	57,300	85,100	120	411	531
August	18,100	46,900	65,000	145	1,430	1,580
September	610	49,700	50,300	5	1,080	1,090
October	31,200	63,900	95,200	25	1,890	1,920
November	1,960	31,500	33,400	26	1,400	1,420
December	8,160	38,300	46,500	9	1,660	1,670
January–December	175,000	521,000	695,000	576	17,100	17,700

^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 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 DECEMBER 2017¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–December ²		
				Gross weight	Mn content	Customs value ³
Australia	6,010	3,980	\$7,520,000	66,000	43,800	\$86,500,000
Brazil	225	148	200,000	2,360	1,550	2,440,000
Canada	--	--	--	76	36	48,600
France	--	--	--	2,300	1,390	3,680,000
Georgia	215	155	224,000	90,200	66,800	89,500,000
India	--	--	--	5,840	3,460	8,750,000
Italy	--	--	--	189	112	257,000
Malaysia	3,500	2,280	3,570,000	13,600	8,950	15,300,000
Mexico	1,800	1,170	2,160,000	26,800	17,000	28,000,000
Norway	2,840	1,700	4,260,000	18,200	10,900	27,500,000
Russia	--	--	--	18,100	12,300	22,500,000
Saudi Arabia	--	--	--	14,700	9,310	16,300,000
South Africa	10,400	6,760	11,400,000	78,100	50,800	81,600,000
Spain	--	--	--	14,800	9,710	19,400,000
Total	25,000	16,200	29,400,000	351,000	236,000	402,000,000

-- Zero.

¹Data 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.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN DECEMBER 2017¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–December ²		
				Gross weight	Mn content	Customs value ³
Low carbon:						
Belgium	--	--	--	24	23	\$56,900
China	218	207	\$310,000	8,100	7,560	15,700,000
France	--	--	--	3,300	2,680	5,410,000
Germany	123	114	281,000	447	415	1,080,000
Japan	--	--	--	15	12	34,800
Korea, Republic of	198	182	375,000	9,300	8,310	18,300,000
Mexico	18	15	47,200	2,170	1,760	2,910,000
Norway	5,430	4,400	9,080,000	32,500	26,400	55,500,000
Russia	--	--	--	24	23	56,900
Saudi Arabia	--	--	--	5	4	8,590
South Africa	--	--	--	216	201	403,000
Total	5,980	4,920	10,100,000	56,100	47,400	99,500,000
Medium carbon, 1%–2% C:						
China	--	--	--	45	34	115,000
France	--	--	--	400	324	625,000
Germany	--	--	--	1	1	2,180
Korea, Republic of	3,010	2,410	4,600,000	25,300	20,300	38,400,000
Mexico	850	683	1,310,000	3,690	2,890	6,370,000
Norway	4,650	3,780	7,130,000	23,200	18,900	36,400,000
South Africa	2,540	2,050	4,870,000	20,900	16,900	37,000,000
Total	11,100	8,930	17,900,000	73,600	59,300	119,000,000
High carbon:						
Australia	--	--	--	65,800	47,000	80,800,000
Brazil	780	182	926,000	5,970	3,750	6,730,000
Canada	--	--	--	177	117	271,000
Georgia	--	--	--	2,400	1,860	2,230,000
Germany	--	--	--	3	2	3,710
India	--	--	--	2,550	1,890	3,240,000
Korea, Republic of	500	380	578,000	500	380	578,000
Malaysia	--	--	--	9,740	7,360	12,600,000
Mexico	--	--	--	268	191	223,000
Netherlands	--	--	--	344	265	373,000
Norway	--	--	--	1,640	1,280	1,780,000
Russia	660	502	664,000	6,640	5,070	6,430,000
Saudi Arabia	9	8	16,700	5,550	4,160	6,940,000
South Africa	4,570	3,480	6,760,000	64,000	48,800	85,500,000
Spain	--	--	--	17,600	13,400	20,800,000
Ukraine	1,650	1,270	1,710,000	17,300	13,200	18,300,000
United Kingdom	--	--	--	3	2	3,980
Total	8,160	5,820	10,600,000	201,000	149,000	247,000,000
Grand total	25,200	19,700	38,700,000	330,000	255,000	465,000,000

-- 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.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN DECEMBER 2017¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–December ²		
				Gross weight	Mn content	Customs value ³
More than 20%, but less than 47% manganese:						
Cote d'Ivoire	--	--	--	332	133	\$19,800
Gabon	--	--	--	13,100	5,640	2,390,000
Mexico	--	--	--	13,200	5,100	2,480,000
South Africa	--	--	--	33,000	13,200	6,250,000
Total	--	--	--	59,600	24,100	11,100,000
47% or more manganese:						
Australia	--	--	--	20,400	9,770	8,340,000
Brazil	--	--	--	625	340	412,000
Gabon	12,500	6,280	\$3,670,000	202,000	129,000	49,400,000
Georgia	--	--	--	122	88	138,000
Korea, Republic of	--	--	--	20	14	12,800
Mexico	2,520	1,570	597,000	10,900	5,590	2,850,000
Morocco	--	--	--	187	135	245,000
South Africa	17	8	4,080	2,440	1,200	805,000
Total	15,000	7,860	4,270,000	237,000	146,000	62,200,000
Grand total	15,000	7,860	4,270,000	297,000	170,000	73,300,000

-- 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.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN DECEMBER 2017¹

(Metric tons, gross weight)

Source	Quantity	Customs value ³	January–December ²	
			Quantity	Customs value ³
Belgium	--	--	74	\$266,000
Brazil	--	--	52	77,500
Canada	--	--	3	3,380
China	--	--	80	136,000
Germany	--	--	89	176,000
India	--	--	35	64,600
Japan	486	\$1,090,000	6,940	14,800,000
Korea, Republic of	18	30,000	18	30,000
Morocco	--	--	19	86,600
Netherlands	--	--	22	38,100
Singapore	--	--	79	107,000
Spain	--	--	12	20,500
Ukraine	--	--	74	125,000
Total	504	1,120,000	7,500	15,900,000

-- 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.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN DECEMBER 2017¹

(Metric tons)

Source	Gross weight	Customs value ³	January–December ²	
			Gross weight	Customs value ³
Unwrought flake:				
China	949	\$1,400,000	8,280	\$13,700,000
Gabon	--	--	200	356,000
Hong Kong	--	--	50	96,300
Japan	57	234,000	497	2,500,000
Mexico	--	--	50	148,000
South Africa	458	1,030,000	5,630	13,300,000
Total	1,460	2,670,000	14,700	30,100,000
Unwrought powder:				
China	57	95,100	256	486,000
Mexico	15	47,700	238	803,000
South Africa	74	202,000	1,590	4,370,000
Total	146	345,000	2,090	5,660,000
Unwrought, other:				
Belgium	--	--	38	78,900
China	533	924,000	8,990	16,800,000
Germany	107	214,000	1,490	3,090,000
Japan	--	--	(⁴)	2,210
Portugal	--	--	(⁴)	5,100
Russia	--	--	24	50,100
South Africa	79	170,000	680	1,450,000
Spain	--	--	46	90,500
Total	719	1,310,000	11,300	21,600,000
Other manganese, wrought:				
Canada	--	--	22	6,520
China	--	--	(⁴)	2,790
Germany	14	170,000	226	2,470,000
India	--	--	(⁴)	2,110
Japan	(⁴)	16,400	4	46,900
Malaysia	--	--	(⁴)	3,650
Mexico	47	128,000	254	676,000
South Africa	--	--	10	19,400
Sweden	5	54,800	13	122,000
United Kingdom	--	--	(⁴)	2,730
Total	66	369,000	528	3,350,000
Metallic waste and scrap:				
Canada	109	33,200	849	228,000
China	--	--	36	60,100
Mexico	--	--	3	3,210
United Kingdom	--	--	2	5,530
Total	109	33,200	889	297,000
Grand total	2,440	4,690,000	29,500	61,000,000

-- 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.

⁴Less 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 DECEMBER 2017^{1,2}

Source	Gross weight (metric tons)	F.a.s. ⁴ value (thousands)	January–December ³	
			Gross weight (metric tons)	F.a.s. ⁴ value (thousands)
Ore and concentrates with 20% or more manganese:				
Belgium	19	\$76	468	\$534
Canada	--	--	47	43
China	--	--	48	61
Germany	--	--	205	168
Mexico	--	--	48	47
Netherlands	--	--	254	1,000
Poland	--	--	18	22
Switzerland	--	--	4	3
Taiwan	--	--	(5)	6
United Kingdom	--	--	59	43
Total	19	76	1,150	1,930
Ferromanganese:				
2% or less carbon:				
Canada	4	6	4,810	7,590
Chile	--	--	35	66
China	5	6	17	26
Other (7 countries)	8	14	63	128
Total	16	27	4,930	7,810
More than 2% carbon:				
Canada	859	1,280	3,740	5,680
Mexico	120	109	497	526
Singapore	--	--	10	28
United Kingdom	--	--	14	42
Other (10 countries)	2	6	46	136
Total	981	1,400	4,310	6,420
Silicomanganese:				
Canada	701	1,070	8,320	11,700
Georgia	--	--	128	120
United Kingdom	--	--	4	6
Total	701	1,070	8,460	11,900
Metal, including alloys and waste and scrap:⁶				
Belgium	--	--	16	303
Canada	1	6	75	225
Costa Rica	--	--	16	205
India	60	20	1,050	663
Japan	18	62	111	378
Malaysia	323	105	2,370	1,100
Mexico	4	68	192	795
Pakistan	--	--	93	72
Other (16 countries)	(5)	15	291	1,070
Total	406	277	4,210	4,810
Grand total	2,120	2,850	23,100	32,800

-- Zero.

¹Presentation of monthly data is based on the "January–December" quantities of the leading countries.

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.

⁵Less than ½ unit.

⁶Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS
IN DECEMBER 2017, BY CLASS¹

Class	Gross weight (metric tons)	Value ³ (thousands)	Principal sources and destinations: gross weight (metric tons); value ³ (thousands)	January–December ²		
				Gross weight (metric tons)	Value ³ (thousands)	Principal sources and destinations: gross weight (metric tons); value ³ (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	2,400	\$2,200	South Korea 1,290; \$1,280	26,700	\$20,400	South Africa 13,100; \$7,230
Manganites, manganates, and other permanganates	6	21	South Korea 6; \$12	6	39	South Korea 6; \$12
Potassium permanganate	128	332	India 128; \$332	988	2,480	India 923; \$2,340
Sodium permanganate	38	81	China 38; \$81	1,300	2,950	China 1,140; \$2,580
Sulfates, basket category, including manganese sulfate	5,190	3,640	India 1,850; \$940	66,000	49,900	China 25,700; \$18,300
Exports:						
Manganese dioxide	511	889	Canada 343; \$302	5,780	9,290	Canada 3,200; \$2,840
Manganese oxides other than dioxide	382	727	Canada 80; \$90	6,310	11,700	Canada 1,210; \$1,750
Manganites, manganates, and other permanganates	4	14	Canada 3; \$6	92	388	Canada 86; \$177
Potassium permanganate	286	859	Belgium 110; \$259	3,320	9,320	Belgium 1,800; \$4,260
Sodium permanganate	98	247	Belgium 77; \$159	770	2,420	Belgium 394; \$831
Sulfates, basket category, including manganese sulfate	1,610	2,820	Canada 1,270; \$863	21,100	26,200	Canada 15,000; \$7,930

¹Data are rounded to no more than three significant digits.

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

³For imports, customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.