

Mineral Industry Surveys

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MANGANESE IN APRIL 2016

Preliminary data for April 2016 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 28,400 metric tons (t) (gross weight). This was a 7% decrease compared with the amount consumed in March 2016 (30,500 t). Manganese ore consumption during the first 4 months of 2016 was 125,000 t, 20% less than the revised amount consumed during the same period of 2015 (156,000 t). Industry stocks of ore at the end of April 2016 were 174,000 t, which was a 9% decrease from the amount at the end of March 2016 (192,000 t).

On a gross-weight basis, U.S. imports of manganese ore were 100% less in April 2016 compared to the amount imported in March 2016 (47,900 t) (table 5). Manganese ore imports were 66% lower during the first 4 months of 2016 compared with those during the same period in 2015. The amounts of manganese ore that were consumed and imported since April 2014 are shown in figure 1.

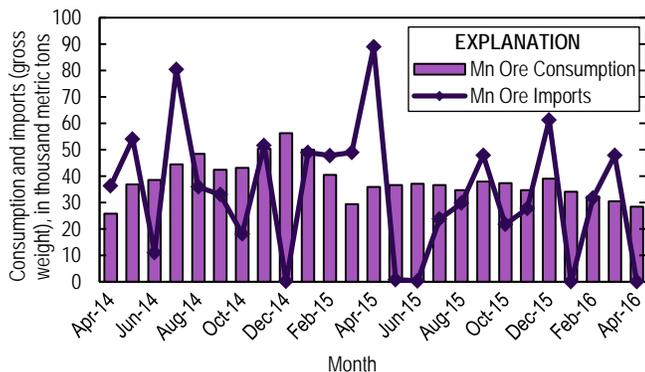


Figure 1. Monthly domestic consumption and imports of manganese (Mn) ore from April 2014 through April 2016. Sources: U.S. Census Bureau and U.S. Geological Survey.

Average spot-market prices for three grades of manganese ore delivered to China from April 2014 through April 2016 are shown in figure 2. In April 2016, the average spot prices were 3.78 dollars per metric ton unit, 36%–39% grade; 3.83 dollars per metric ton unit, 44% grade; and 3.63 dollars per metric ton unit, 46% grade (fig. 2, table 1). These were all higher than those manganese ore prices in April 2015—31% more than the 36%–39% grade, 20% more for the 44% grade, and slightly more for the 46% grade. Compared to April 2014, the average monthly prices are lower—4% less for the 36%–39% grade, 18% less for the 44% grade, and 27% less for the 46% grade.

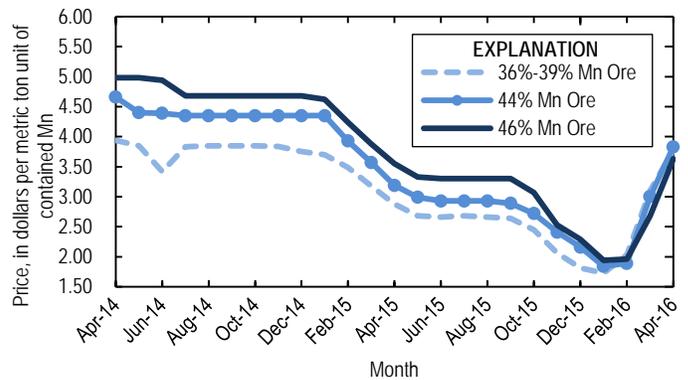


Figure 2. Average monthly spot prices for manganese (Mn) ore deliveries to China from April 2014 through April 2016. The prices shown are reported in dollars per metric ton unit of contained Mn. Source: CRU Ryan's Notes.

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TABLE 1
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN APRIL 2016

		Low	Average	High
<u>Manganese ferroalloys:¹</u>				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	800.00	820.00	840.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	80.00	81.00	82.00
Silicomanganese, 65% manganese	do.	38.00	39.00	40.00
Manganese metal, 99.9% manganese flake ²	cents per pound	95.00	97.50	100.00
<u>Manganese ore:^{3,4}</u>				
36%–39% manganese	dollars per metric ton unit contained manganese	3.40	3.78	4.20
44% manganese	do.	3.30	3.83	4.20
46% manganese	do.	2.95	3.63	4.10

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 46 when the manganese content is 46%.

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
2015:						
April	40,700	40,900	81,500	9	582	591
January–April	115,000 ^r	172,000 ^r	286,000 ^r	100	2,150	2,250
2016:						
January	252	53,700	53,900	29	1,970	2,000
February	17,200	34,700	51,900	18	2,350	2,370
March	25,700	23,800	49,500	15	963	978
April	292	23,400	23,700	7	1,040	1,050
January–April	43,400	136,000	179,000	70	6,320	6,390

^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 APRIL 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–April		
				Gross weight	Mn content	Customs value ²
Australia	--	--	--	16,100	10,900	\$10,400,000
Brazil	675	445	\$403,000	2,750	1,860	1,670,000
Georgia	8,250	5,510	5,710,000	25,800	18,100	19,400,000
India	2	1	3,450	635	379	613,000
Mexico	3,600	2,350	2,200,000	9,490	6,180	6,070,000
Norway	31	20	53,200	7,170	4,720	5,340,000
Russia	--	--	--	14	7	20,400
South Africa	10,400	7,090	6,970,000	39,000	25,700	27,300,000
Spain	--	--	--	500	325	363,000
Total	23,000	15,400	15,300,000	101,000	68,200	71,200,000

-- Zero.

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

²Customs 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 APRIL 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–April		
				Gross weight	Mn content	Customs value ²
Low carbon:						
China	468	431	\$780,000	2,350	2,180	\$3,630,000
Germany	12	12	22,600	165	148	423,000
Korea, Republic of	450	423	629,000	1,350	1,250	2,160,000
Mexico	--	--	--	500	402	559,000
Norway	1,840	1,490	2,230,000	9,170	7,420	11,000,000
South Africa	--	--	--	50	46	82,000
Total	2,770	2,360	3,660,000	13,600	11,500	17,800,000
Medium carbon, 1%–2% C:						
Australia	--	--	--	2,950	2,310	3,240,000
China	--	--	--	60	46	122,000
Germany	--	--	--	8	6	15,400
Korea, Republic of	2,500	2,090	3,060,000	13,700	11,100	16,400,000
Mexico	50	38	82,600	1,930	1,520	2,380,000
Norway	308	251	317,000	1,030	835	1,050,000
South Africa	1,310	1,050	1,930,000	3,940	3,180	5,770,000
Turkey	--	--	--	20	15	29,900
Total	4,170	3,420	5,390,000	23,600	19,000	29,000,000
Medium carbon, 2%–4% C:						
China	--	--	--	323	254	160,000
South Africa	--	--	--	51	40	160,000
Total	--	--	--	374	294	320,000
High carbon:						
Australia	--	--	--	16,400	11,600	13,600,000
Brazil	64	50	119,000	64	50	119,000
Canada	53	35	68,500	72	49	116,000
Georgia	--	--	--	5,000	3,760	3,440,000
Korea, Republic of	--	--	--	1,240	963	1,790,000
Norway	330	256	475,000	7,590	5,450	4,970,000
Russia	--	--	--	1,550	981	1,010,000
South Africa	55	40	74,500	5,780	4,460	6,550,000
Spain	96	73	63,200	288	220	191,000
Ukraine	--	--	--	1,530	937	902,000
Total	597	455	800,000	39,500	28,500	32,700,000
Grand total	7,540	6,230	9,850,000	77,100	59,300	79,800,000

-- Zero.

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

²Customs 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 APRIL 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–April		
				Gross weight	Mn content	Customs value ²
More than 20%, but less than 47% manganese, China	57	26	\$3,920	57	26	\$3,920
47% or more manganese:						
Australia	--	--	--	7,130	3,510	1,200,000
Brazil	52	26	23,200	157	78	70,500
Gabon	--	--	--	72,400	38,800	10,600,000
Morocco	39	22	50,900	77	44	102,000
South Africa	--	--	--	100	48	43,700
Total	91	48	74,100	79,800	42,400	12,000,000
Grand total	148	74	78,000	79,900	42,500	12,000,000

-- Zero.

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

²Customs 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 APRIL 2016¹

(Metric tons, gross weight)

Source	Quantity	Customs value ²	January–April	
			Quantity	Customs value ²
Belgium	1	\$5,800	38	\$77,500
Brazil	10	17,600	31	52,600
France	--	--	18	33,300
Germany	--	--	2	8,540
India	--	--	17	33,900
Japan	341	742,000	1,400	3,110,000
Singapore	11	19,100	56	95,500
Ukraine	--	--	10	16,900
Total	364	785,000	1,570	3,430,000

-- Zero.

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

²Customs 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 APRIL 2016¹

(Metric tons)

Source	Gross weight	Customs value ²	January–April	
			Gross weight	Customs value ²
Unwrought flake:				
China	28	\$94,500	1,230	\$3,000,000
Japan	40	123,000	92	302,000
Mexico	11	36,300	27	89,700
South Africa	445	788,000	2,160	3,900,000
Total	524	1,040,000	3,510	7,290,000
Unwrought powder:				
China	--	--	125	337,000
Mexico	3	8,710	66	215,000
New Zealand	3	2,500	3	2,500
South Africa	183	498,000	809	2,190,000
Total	188	510,000	1,000	2,750,000
Unwrought, other:				
China	787	1,500,000	2,870	5,300,000
Germany	59	107,000	81	153,000
South Africa	82	166,000	258	538,000
Spain	23	48,400	128	271,000
Total	951	1,830,000	3,330	6,270,000
Other manganese, wrought:				
China	49	85,600	109	173,000
Germany	27	261,000	41	400,000
Japan	--	--	(3)	11,100
Mexico	--	--	2	6,350
Total	76	347,000	152	590,000
Metallic waste and scrap, Canada	4	4,430	141	37,400
Grand total	1,740	3,730,000	8,140	16,900,000

-- Zero.

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

²Customs 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.

³Less 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 OF DESTINATION IN APRIL 2016^{1,2}

Source	Gross weight (metric tons)	F.a.s. ³ value (thousands)	January–April	
			Gross weight (metric tons)	F.a.s. ³ value (thousands)
Ore and concentrates with 20% or more manganese:				
Canada	1	\$5	20	\$21
El Salvador	2	3	2	3
Guatemala	--	--	11	29
Korea, Republic of	--	--	3	17
Mexico	--	--	8	27
Netherlands	12	52	76	321
United Kingdom	--	--	20	17
Total	14	60	139	435
Ferromanganese:				
2% or less carbon:				
Brazil	--	--	7	14
Canada	699	843	1,570	1,900
Colombia	--	--	2	4
Mexico	66	125	66	125
Suriname	13	24	13	24
Total	777	993	1,660	2,070
More than 2% carbon:				
Canada	65	51	3,850	3,140
Chile	--	--	20	57
Italy	--	--	1	8
Mexico	--	--	9	14
Total	65	51	3,880	3,220
Silicomanganese:				
Canada	118	92	270	309
Mexico	--	--	14	31
Venezuela	--	--	3	5
Total	118	92	287	345
Metal, including alloys and waste and scrap:⁴				
Canada	4	9	20	37
China	9	123	56	779
Germany	15	58	35	140
India	--	--	13	206
Japan	20	67	20	72
Macao	10	40	10	40
Malaysia	221	66	1,380	523
Mexico	19	102	197	557
Netherlands	--	--	18	71
United Kingdom	--	--	9	89
Other (6 countries)	2	32	6	92
Total	298	496	1,760	2,610
Grand total	1,270	1,690	7,720	8,670

-- Zero.

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

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

³Free alongside ship.

⁴Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS
IN APRIL 2016, BY CLASS¹

Class	Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)	January–April		
				Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	1,840	\$1,140	South Africa 1,050; \$369	6,500	\$4,230	Brazil 3,070; \$900
Manganites, manganates, and other Permanganates	--	--	--	(3)	10	Canada (3); \$10
Potassium permanganate	36	94	India 36; \$94	217	549	India 217; \$549
Sodium permanganate	97	235	China 79; \$190	246	591	China 228; \$546
Sulfates, basket category, including manganese sulfate	5,510	4,810	Mexico 1,970; \$1,850	21,300	17,800	Mexico 8,530; \$7,680
Exports:						
Manganese dioxide	469	572	Canada 262; \$208	1,380	2,790	Canada 616; \$511
Manganese oxides other than dioxide	432	1,030	Canada 99; \$184	2,020	4,020	Canada 418; \$597
Manganites, manganates, and other permanganates	9	17	Canada 9; \$17	24	57	Canada 23; \$45
Potassium permanganate	217	942	Belgium 126; \$252	984	2,930	Belgium 483; \$1,090
Sodium permanganate	27	79	Mexico 19; \$42	240	652	Belgium 97; \$208
Sulfates, basket category, including manganese sulfate	1,590	1,610	Canada 1,210; \$559	7,700	6,040	Canada 6,140; \$2,430

-- Zero.

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

²For imports, customs value; for exports, free alongside ship value.

³Less than ½ unit.

Source: U.S. Census Bureau.