

Mineral Industry Surveys

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MANGANESE IN SEPTEMBER 2016

Preliminary data for September 2016 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 27,000 metric tons (t) (gross weight). This was an 8% increase compared with the amount consumed in August 2016 (25,000 t). Manganese ore consumption during the first 9 months of 2016 was 269,000 t, 21% less than the revised amount consumed during the same period of 2015 (339,000 t) (fig. 1). Industry stocks of ore at the end of September 2016 were 144,000 t, 10% less than that at the end of August 2016 (160,000 t).

On a gross-weight basis, U.S. imports of manganese ore in September 2016 were 34,700 t, 44% less than that imported in August 2016 (61,500 t) (fig. 1, table 5). Manganese ore imports were 41% less during the first 9 months of 2016 (198,000 t) compared with the revised amount (337,000 t) during the same period in 2015.

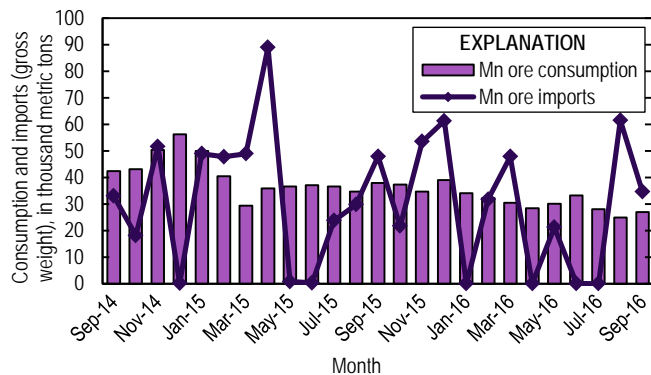


Figure 1. Monthly domestic consumption and imports of manganese (Mn) ore from September 2014 through September 2016. Sources: U.S. Census Bureau and U.S. Geological Survey.

From January 2015 through January 2016, average monthly spot-market prices for manganese ore deliveries to China decreased by more than one-half, ending at 1.73 dollars per metric ton unit, 36%–39% grade; 1.84 dollars per metric ton unit, 44% grade; and 1.94 dollars per metric ton unit, 46% grade (fig. 2 1). Since then, the average monthly spot prices have trended upwards in China. By September 2016, the average prices had more than doubled—4.08 dollars per metric ton unit, 36%–39% grade; 4.48 dollars per metric ton unit, 44% grade; and 4.74 dollars per metric ton unit, 46% grade (fig. 2, table 1). The September 2016 prices also surpassed those of September 2014—6% more for the 36%–39% grade, 3% more for the 44% grade, and slightly more for the 46% grade. The increased prices were a result of reductions in supply from mining companies outside of China amid a period of increasing consumption by the country’s manganese alloy producers (Mu, 2016). Global manganese ore production was reported to have decreased by 13% during the first 9 months of 2016 (Argus Media Group-Metal Pages, 2016).

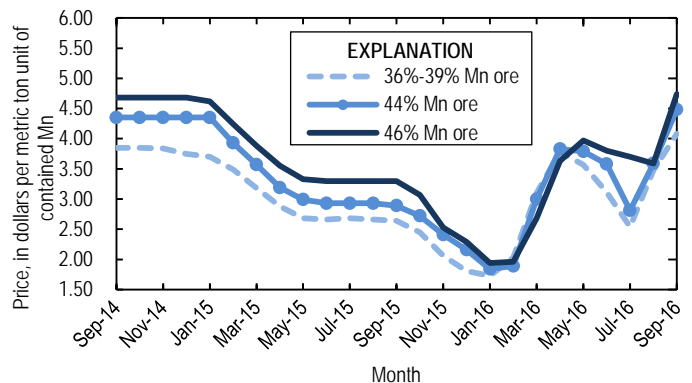


Figure 2. Average monthly spot prices for manganese (Mn) ore deliveries to China from September 2014 through September 2016. Source: CRU Ryan’s Notes.

References Cited

- Argus Media Group-Metal Pages, 2016, Global Mn ore output down in September: Argus Media Group-Metal Pages, October 31. (Accessed January 25, 2017, via <http://www.metal-pages.com>.)
- Mu, Alice, 2016, China's manganese ore port stocks up: Argus Media Group-Metal Pages, September 23. (Accessed January 25, 2017, via <http://www.metal-pages.com>.)

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

		Low	Average	High
Manganese ferroalloys:¹				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	820.00	850.00	870.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	76.00	77.00	78.00
Silicomanganese, 65% manganese	do.	40.00	41.56	43.00
Manganese metal, 99.9% manganese flake ²	cents per pound	93.00	95.50	98.00
Manganese ore:^{3,4}				
36%–39% manganese	dollars per metric ton unit contained manganese	3.75	4.08	4.60
44% manganese	do.	4.00	4.48	5.00
46% manganese	do.	4.40	4.74	5.20

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:						
September	21,300 ^r	37,600 ^r	58,900 ^r	8	1,680	1,690
January–September ³	158,000	394,000	552,000	254	6,000	6,260
2016:						
January	252	53,700	53,900	39	4,170	4,210
February	17,200	34,700	51,900	59	4,360	4,420
March	25,700	23,800	49,500	83	3,500	3,580
April	292	23,400	23,700	13	4,180	4,190
May	10,800	28,600	39,400	86	2,850	2,930
June	324	47,700	48,000	80	3,900	3,980
July	318	30,100	30,400	47	3,300	3,350
August	28,100	26,700	54,900	58	3,220	3,280
September	19,100	40,500	59,600	47	2,490	2,540
January–September ³	102,000	309,000	411,000	513	32,000	32,500

^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.

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

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN SEPTEMBER 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–September ²		
				Gross weight	Mn content	Customs value ³
Australia	13,800	10,800	\$10,600,000	44,300	29,300	\$31,400,000
Brazil	--	--	--	5,560	3,710	3,490,000
Gabon	--	--	--	312	221	201,000
Georgia	260	190	189,000	70,700	50,800	53,100,000
India	--	--	--	1,200	726	1,360,000
Mexico	--	--	--	18,700	11,900	11,300,000
Norway	1,420	865	1,530,000	18,800	12,200	15,300,000
Russia	--	--	--	14	7	20,400
South Africa	1,300	845	910,000	57,300	37,600	39,500,000
Spain	1,110	725	930,000	3,570	2,330	2,930,000
Total	17,900	13,500	14,200,000	220,000	149,000	159,000,000

-- 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 SEPTEMBER 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–September ²		
				Gross weight	Mn content	Customs value ³
Low carbon:						
Belgium	--	--	--	24	23	\$55,200
China	1,120	1,050	\$1,790,000	7,330	6,830	11,700,000
Germany	138	123	319,000	462	416	1,090,000
India	566	457	717,000	566	457	717,000
Korea, Republic of	--	--	--	2,350	2,050	3,320,000
Mexico	18	15	48,500	554	446	672,000
Norway	3,820	3,070	4,420,000	22,100	17,900	26,100,000
South Africa	--	--	--	50	46	82,000
Total	5,660	4,720	7,300,000	33,400	28,100	43,800,000
Medium carbon, 1%–2% C:						
Australia	--	--	--	6,860	5,440	5,670,000
Brazil	78	61	81,900	78	61	81,900
China	--	--	--	60	46	122,000
Germany	--	--	--	8	6	15,400
India	285	230	342,000	285	230	342,000
Korea, Republic of	2,500	2,000	2,660,000	25,300	20,600	30,000,000
Mexico	159	127	336,000	6,440	5,140	7,530,000
Norway	1,100	895	1,150,000	4,740	3,860	4,970,000
South Africa	2,540	2,050	3,330,000	7,180	5,780	10,100,000
Turkey	--	--	--	79	60	143,000
Total	6,660	5,360	7,910,000	51,000	41,200	59,000,000
Medium carbon, 2%–4% C:						
China	--	--	--	323	254	160,000
South Africa	--	--	--	51	40	160,000
Total	--	--	--	374	294	320,000
High carbon:						
Australia	13,000	9,680	8,430,000	43,700	31,700	31,000,000
Brazil	--	--	--	536	408	538,000
Canada	--	--	--	114	79	170,000
China	--	--	--	10	8	14,400
Georgia	--	--	--	5,440	4,110	4,070,000
India	283	214	224,000	283	214	224,000
Korea, Republic of	--	--	--	3,420	2,310	3,110,000
Norway	--	--	--	7,800	5,610	5,280,000
Russia	--	--	--	1,980	1,310	1,620,000
Singapore	2	1	2,590	7	6	10,400
South Africa	8,190	5,930	6,010,000	34,000	23,600	25,600,000
Spain	--	--	--	312	238	207,000
Ukraine	--	--	--	5,470	3,360	3,070,000
Total	21,500	15,800	14,700,000	103,000	73,000	74,900,000
Grand total	33,800	25,900	29,900,000	188,000	143,000	178,000,000

-- 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 SEPTEMBER 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–September ²		
				Gross weight	Mn content	Customs value ³
More than 20%, but less than 47% manganese:						
China	--	--	--	57	26	\$3,920
South Africa	--	--	--	33,000	12,300	2,820,000
Total	--	--	--	33,100	12,400	2,820,000
47% or more manganese:						
Australia	--	--	--	7,130	3,510	1,200,000
Belgium	19	11	\$86,600	37	22	173,000
Brazil	53	27	23,900	369	186	199,000
Gabon	34,400	18,600	5,560,000	145,000	77,600	22,400,000
Mexico	--	--	--	10,900	5,580	1,400,000
Morocco	39	22	50,900	154	87	202,000
South Africa	160	78	65,000	686	336	224,000
Total	34,700	18,800	5,780,000	165,000	87,300	25,800,000
Grand total	34,700	18,800	5,780,000	198,000	99,600	28,700,000

-- 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 SEPTEMBER 2016¹

(Metric tons, gross weight)

Source	Quantity	Customs value ³	January–September ²	
			Quantity	Customs value ³
Belgium	--	--	45	\$111,000
Brazil	--	--	43	72,900
China	2	\$9,530	65	116,000
France	--	--	18	33,300
Germany	2	8,540	10	51,300
India	24	41,600	59	111,000
Japan	459	976,000	3,580	7,740,000
Netherlands	--	--	11	19,400
Singapore	11	19,100	90	153,000
Ukraine	9	15,200	19	32,200
United Kingdom	--	--	(4)	2,070
Total	508	1,070,000	3,940	8,440,000

-- 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 7
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN SEPTEMBER 2016¹

(Metric tons)

Source	Gross weight	Customs value ³	January–September ²	
			Gross weight	Customs value ³
Unwrought flake:				
China	88	\$268,000	2,040	\$4,930,000
Gabon	--	--	97	157,000
Japan	38	131,000	312	1,050,000
Mexico	--	--	39	129,000
South Africa	387	791,000	5,070	9,560,000
Total	513	1,190,000	7,560	15,800,000
Unwrought powder:				
China	--	--	245	516,000
Mexico	10	31,400	168	546,000
New Zealand	--	--	3	2,500
South Africa	40	107,000	1,810	4,880,000
Total	50	139,000	2,220	5,950,000
Unwrought, other:				
Belgium	--	--	22	40,400
China	366	611,000	6,290	11,500,000
Germany	124	223,000	622	1,120,000
Poland	--	--	(4)	8,640
South Africa	61	125,000	441	910,000
Spain	--	--	177	374,000
United Kingdom	--	--	38	65,500
Total	551	959,000	7,590	14,000,000
Other manganese, wrought:				
China	--	--	109	182,000
France	--	--	3	47,600
Germany	17	172,000	123	1,230,000
Japan	--	--	(4)	34,000
Mexico	--	--	14	49,200
South Africa	10	25,200	10	25,200
Total	27	198,000	259	1,570,000
Metallic waste and scrap, Canada	23	19,200	341	102,000
Grand total	1,160	2,500,000	18,000	37,500,000

-- 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 OF DESTINATION IN SEPTEMBER 2016^{1,2}

Source	Gross weight (metric tons)	F.a.s. ⁴ value (thousands)	January–September ³	
			Gross weight (metric tons)	F.a.s. ⁴ value (thousands)
Ore and concentrates with 20% or more manganese:				
Canada	43	\$41	736	\$628
China	--	--	33	32
Guatemala	--	--	11	29
Korea, Republic of	--	--	3	17
Mexico	--	--	24	73
Netherlands	33	143	174	733
Poland	18	12	18	12
United Kingdom	--	--	20	17
Other (2 countries)	--	--	2	9
Total	94	196	1,020	1,550
Ferromanganese:				
2% or less carbon:				
Brazil	--	--	7	14
Canada	319	402	3,970	5,260
Colombia	--	--	2	4
Jamaica	--	--	22	42
Mexico	40	92	217	558
Suriname	--	--	51	96
Vietnam	--	--	6	10
Total	359	494	4,270	5,980
More than 2% carbon:				
Canada	1,190	991	17,500	14,200
Chile	--	--	20	57
Colombia	61	171	61	171
Korea, Republic of	--	--	6	23
Mexico	64	46	103	125
United Arab Emirates	--	--	8	23
Other (6 countries)	(5)	11	7	32
Total	1,320	1,220	17,700	14,600
Silicomanganese:				
Canada	665	674	11,100	10,700
Georgia	21	30	21	30
Mexico	38	88	378	501
Other (2 countries)	--	--	5	8
Total	724	792	11,500	11,300
Metal, including alloys and waste and scrap:⁶				
Canada	9	28	173	270
China	10	156	416	1,580
Japan	24	87	98	331
Malaysia	449	179	2,960	1,040
Mexico	63	186	2,810	8,590
United Kingdom	67	76	106	486
Vietnam	41	13	222	45
Other (15 countries)	24	88	208	1,120
Total	687	812	7,000	13,500
Grand total	3,180	3,510	41,500	46,900

-- Zero.

¹Presentation of monthly data is based on the "January–September" 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 SEPTEMBER 2016, BY CLASS¹

Class	Gross weight (metric tons)	Value ³ (thousands)	Principal sources and destinations: gross weight (metric tons); value ³ (thousands)	January–September 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	1,160	\$751	South Africa 516; \$245	14,500	\$10,100	Korea, Republic of 4,630; \$5,260
Manganites, manganates, and other permanganates						
Permanganates	--	--	--	10	33	Canada 10; \$33
Potassium permanganate	47	122	India 39; \$105	517	1,310	India 508; \$1,290
Sodium permanganate	135	291	China 96; \$198	818	1,910	China 739; \$1,700
Sulfates, basket category, including manganese sulfate	3,440	3,160	Mexico 1,290; \$1,000	43,000	37,400	Mexico 16,100; \$14,200
Exports:						
Manganese dioxide	475	560	Canada 326; \$278	4,970	7,270	Canada 3,290; \$3,010
Manganese oxides other than dioxide	231	512	Canada 66; \$107	4,360	8,460	Canada 869; \$1,160
Manganites, manganates, and other permanganates	5	10	Canada 5; \$10	76	192	Canada 72; \$145
Potassium permanganate	282	800	Belgium 126; \$296	2,260	6,420	Belgium 1,150; \$2,630
Sodium permanganate	95	222	Mexico 43; \$95	574	2,540	Mexico 211; \$619
Sulfates, basket category, including manganese sulfate	1,430	1,200	Canada 1,150; \$697	17,500	14,900	Canada 13,900; \$6,710

-- Zero.

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.