

# Mineral Industry Surveys

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## MANGANESE IN AUGUST 2009

Preliminary reported data (gross weight) for August 2009 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 38,200 metric tons (t), according to the U.S. Geological Survey. This was the same as that consumed in July 2009. Manganese ore consumption in the first 8 months of 2009 was 307,000 t, which was an 18% increase from the revised amount consumed during the first 8 months of 2008. This increase was the result of sustained production by a major manganese ferroalloy producer. Industry stocks of ore at the end of August 2009 were 115,000 t, which was the same as that at the end of July 2009.

Data for U.S. manganese imports and exports for July 2009 are published in this issue. On a contained-weight basis, U.S. imports of manganese ore plus dioxide and manganese ferroalloys plus metal were 98% lower and 79% higher,

respectively, than those in June 2009. U.S. imports of manganese ore plus dioxide and manganese ferroalloys plus metal during the first 7 months of 2009 were 26% lower and 74% lower, respectively, than those during the same period in 2008 (table 1).

On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal exports for July 2009 were 165% higher and 25% lower, respectively, than those in June 2009. U.S. exports of manganese ore and manganese ferroalloys plus metal during the first 7 months of 2009 were 69% lower and 34% more, respectively, than those during the same period in 2008 (table 1).

**Prices**

Prices for manganese materials in August 2009, manganese content, are listed below.

**Ferroalloys prices<sup>1</sup>**

	<u>Price Range</u>	<u>Average Price</u>
High-carbon ferromanganese <sup>2</sup>	1,000.00-1,280.00	1,141.25
Medium-carbon ferromanganese <sup>3</sup>	83.00-90.00	86.13
Silicomanganese <sup>3</sup>	50.00-65.00	54.75

**Manganese metal and ore prices<sup>4</sup>**

	<u>Price Range</u>	<u>Average Low, Mid, and High Prices</u>
Manganese metal <sup>3</sup>	150.00-162.00	153.25-155.69-158.13
36%-39% Manganese ore <sup>5</sup>	4.50-5.00	4.65-4.79-4.93
44% Manganese ore <sup>5</sup>	5.00-5.90	5.39-5.49-5.60
48% Manganese ore <sup>5</sup>	5.60-6.80	6.03-6.27-6.51

<sup>1</sup>Source: Platts Metals Week, dealer import price; average prices reported for all transactions during the month.

<sup>2</sup>Dollars per gross ton.

<sup>3</sup>Cents per pound.

<sup>4</sup>Source: Ryan's Notes, cost and freight, China; average prices reported for the price range.

<sup>5</sup>Dollars per metric ton unit, contained manganese. To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 48 when the manganese content is 48%.

TABLE 1  
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
2008:						
July	20,800	66,800	87,600	634	2,560	3,190
January-July	170,000	393,000	563,000	15,100	17,900	32,900
2009:						
January	25,600	36,600	62,100	102	2,460	2,560
February	559	13,400	14,000	188	4,270	4,460
March	26,300	8,670	35,000	80	1,730	1,810
April	9,960	7,450	17,400	80	3,190	3,270
May	946	12,400	13,400	2,310	2,900	5,210
June	61,300	8,970	70,300	526	5,360	5,890
July	1,220	16,000	17,200	1,400	4,050	5,440
Total	126,000	104,000	229,000	4,690	24,000	28,600

<sup>1</sup>Data 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 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN JULY 2009<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	5,400	3,580	\$3,190,000	12,800	8,440	\$11,700,000
China	--	--	--	537	321	937,000
Georgia	11,400	7,220	7,490,000	18,500	12,200	14,200,000
Korea, Republic of	20	13	17,300	7,090	4,620	6,380,000
Norway	18	11	40,800	4,540	2,800	6,230,000
Saudi Arabia	1,270	665	445,000	5,860	1,610	4,550,000
South Africa	488	321	799,000	29,100	19,200	34,100,000
Total	18,600	11,800	12,000,000	78,400	49,200	78,000,000

-- Zero.

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

<sup>2</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 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN JULY 2009<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	548	508	\$1,320,000	2,120	1,960	\$5,270,000
Korea, Republic of	--	--	--	2,400	1,940	3,540,000
Mexico	--	--	--	1,040	794	2,350,000
Norway	76	58	144,000	695	563	1,370,000
South Africa	--	--	--	1,000	812	2,500,000
Sweden	--	--	--	5	3	27,500
<b>Total</b>	<b>624</b>	<b>566</b>	<b>1,460,000</b>	<b>7,260</b>	<b>6,070</b>	<b>15,100,000</b>
<b>Medium carbon, 1%-2% C:</b>						
China	--	--	--	536	441	1,220,000
France	--	--	--	19	15	103,000
Korea, Republic of	1,440	1,170	3,320,000	3,000	2,440	6,930,000
Mexico	--	--	--	1,110	904	2,110,000
Norway	95	78	136,000	95	78	136,000
South Africa	40	32	73,800	7,510	5,970	20,200,000
Turkey	--	--	--	20	16	95,800
<b>Total</b>	<b>1,570</b>	<b>1,280</b>	<b>3,530,000</b>	<b>12,300</b>	<b>9,860</b>	<b>30,800,000</b>
Medium carbon, 2%-4% C, South Africa	54	42	117,000	72	55	153,000
<b>High carbon:</b>						
Bahrain	--	--	--	2,000	1,630	2,350,000
Canada	127	69	105,000	127	69	105,000
China	--	--	--	300	221	630,000
India	--	--	--	2,200	1,680	1,900,000
Korea, Republic of	--	--	--	201	164	239,000
Mexico	--	--	--	1,300	990	1,410,000
South Africa	362	278	962,000	30,300	23,400	44,000,000
<b>Total</b>	<b>489</b>	<b>348</b>	<b>1,070,000</b>	<b>36,400</b>	<b>28,100</b>	<b>50,600,000</b>
<b>Grand total</b>	<b>2,740</b>	<b>2,230</b>	<b>6,170,000</b>	<b>56,000</b>	<b>44,100</b>	<b>96,600,000</b>

-- Zero.

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

<sup>2</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 MANGANESE ORE (20% OR MORE Mn) IN JULY 2009<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>3</sup>
More than 20%, but less than 47% manganese	--	--	--	--	--	--
47% or more manganese:						
Brazil	--	--	--	2,960	1,540	\$930,000
China	130	88	\$117,000	4,080	2,090	533,000
Gabon	--	--	--	153,000	78,900	60,400,000
Ghana	--	--	--	37,500	37,100	3,400,000
Total	130	88	117,000	198,000	120,000	65,300,000

-- Zero.

<sup>1</sup>Quantities for general imports and imports for consumption are identical.

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

<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 DIOXIDE IN JULY 2009<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	Year to date	
			Quantity	Customs value <sup>2</sup>
Belgium	--	--	66	\$213,000
Brazil	--	--	56	95,600
Colombia	--	--	5	8,640
France	--	--	18	31,000
Germany	--	--	9	15,700
India	--	--	(3)	7,700
Japan	322	\$877,000	2,670	7,200,000
Netherlands	29	49,500	29	49,500
Singapore	11	18,200	61	103,000
South Africa	1,520	4,010,000	7,450	16,900,000
Spain	--	--	136	309,000
Total	1,880	4,950,000	10,500	24,900,000

-- Zero.

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

<sup>2</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>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN JULY 2009<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	Year to date	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	155	\$374,000	2,360	\$5,560,000
Japan	9	12,900	9	12,900
South Africa	343	907,000	1,510	3,610,000
Total	507	1,290,000	3,870	9,180,000
<b>Unwrought powder:</b>				
China	--	--	280	994,000
South Africa	288	960,000	983	2,940,000
Total	288	960,000	1,260	3,940,000
<b>Unwrought, other:</b>				
Brazil	--	--	15	43,500
China	810	2,070,000	3,320	7,520,000
Germany	101	290,000	470	1,420,000
Hong Kong	45	98,300	183	394,000
Malaysia	--	--	(3)	3,650
South Africa	76	241,000	362	1,160,000
United Kingdom	23	68,600	49	145,000
Total	1,060	2,770,000	4,400	10,700,000
<b>Other manganese, wrought:</b>				
Belgium	--	--	6	31,200
Canada	--	--	22	54,600
China	--	--	249	691,000
Japan	(3)	2,140	(3)	2,140
Mexico	40	177,000	254	1,320,000
Poland	--	--	(3)	3,190
South Africa	6	26,000	12	54,300
Total	46	205,000	543	2,160,000
Grand total	1,900	5,230,000	10,100	26,000,000

-- Zero.

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

<sup>2</sup>Customs value generally represent 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>3</sup>Less than 1/2 unit.

Note: Imports for consumption of metallic waste and scrap totaled 179 metric tons, all of which was from Malaysia, to give a year-to-date total of 261 metric tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,  
AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN JULY 2009<sup>1</sup>

(Metric tons, gross weight)

Country	Manganese ore		Ferromanganese,				Silicomanganese		Manganese metal <sup>2</sup>	
			2% or less C		More than 2% C					
	July	Year to date	July	Year to date	July	Year to date	July	Year to date	July	Year to date
Argentina	--	--	--	--	--	--	--	--	3	5
Australia	--	--	--	--	--	160	--	501	--	--
Belgium	--	--	--	--	--	--	--	--	--	50
Brazil	--	2	--	--	--	380	--	--	--	--
Canada	2,710	8,740	2	2,340	531	4,820	597	2,730	1	22
Chile	--	--	--	200	--	340	--	--	--	--
China	--	--	--	--	--	--	--	--	58	414
Colombia	--	--	--	--	--	40	--	--	--	--
Finland	--	--	--	--	--	--	--	--	--	159
France	--	--	--	--	--	--	--	--	--	5
Germany	70	375	--	--	--	--	--	--	--	51
Guyana	--	--	--	--	--	--	--	--	--	1
Hong Kong	--	--	--	--	--	--	--	--	64	417
India	--	--	--	--	1	12	--	--	3	175
Ireland	--	--	--	--	--	8	--	--	--	--
Italy	--	--	--	--	--	--	--	2,540	--	--
Japan	--	--	--	--	--	1,000	--	--	--	346
Korea, Republic of	17	237	--	--	--	--	--	--	--	--
Malaysia	--	--	--	--	--	1,080	--	--	1	3
Mexico	--	--	991	3,010	--	3,610	1,900	2,960	--	23
Netherlands	1	4	--	--	--	2,000	1,490	1,490	--	--
Norway	--	--	--	--	--	26	--	--	--	--
Saint Lucia	--	--	--	--	--	--	--	--	10	10
Singapore	--	--	--	--	8	8	--	--	--	--
Sweden	--	19	--	--	--	--	--	--	--	--
Taiwan	--	--	--	--	--	--	--	--	23	76
United Arab Emirates	--	--	--	--	--	--	--	--	--	3
United Kingdom	--	--	--	--	--	459	--	--	35	36
Vietnam	--	--	--	--	--	--	--	--	6	17
Total	2,800	9,380	993	5,550	540	13,900	3,980	10,200	204	1,810

-- Zero.

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

<sup>2</sup>Includes manganese-aluminum, some other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN JULY 2009, 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)	Year to date		
				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	803	\$539	Mexico 247; \$195	4,200	\$3,420	Brazil 1,860; \$1,400
Manganites, manganates, and other permanganates	--	--	--	17	62	Germany 17; \$62
Potassium permanganate	64	220	India 36; \$128	526	1,790	Czech Republic 310; \$1,060
Sodium permanganate	--	--	--	--	--	--
Sulfates, basket category, including manganese sulfate	2,700	2,620	China 1,560; \$1,360	19,500	21,400	China 8,320; \$7,450
<b>Exports:</b>						
Manganese dioxide	551	1,130	Canada 283; \$338	4,000	6,470	Canada 2,170; \$2,190
Manganese oxides other than dioxide	616	867	Canada 174; \$99	3,610	4,410	Canada 1,600; \$789
Manganites, manganates, and other permanganates	12	29	Canada 12; \$29	66	164	Canada 64; \$138
Potassium permanganate	193	602	Belgium 111; \$349	1,240	3,770	Belgium 714; \$2,110
Sodium permanganate	143	342	Belgium 74; \$183	525	1,150	Belgium 228; \$577
Sulfates, basket category, including manganese sulfate	1,560	1,430	Canada 1,380; \$1,040	11,300	8,620	Canada 9,540; \$5,727

-- Zero.

<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.