

# Mineral Industry Surveys

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## MANGANESE IN MARCH 2008

Preliminary reported data (gross weight) for March 2008 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 24,900 metric tons (t), according to the U.S. Geological Survey. This was about the same amount that was reported consumed in February 2008. Manganese ore consumption during the first quarter of 2008 was about 74,700 t, which was 88% of net manganese ore imports during the same

period (84,900 t). Consumption was 6% more and 2% less than that during the fourth and first quarters of 2007, respectively.

Corresponding industry stocks of ore at the end of the March were 98,900 t, which was about the same as that at the end of February 2008. These data include estimates for annual respondents on the basis of 2007 data.

Data for U.S. imports and exports for February are published in this issue.

### Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup> (dollars per gross ton)	Medium-carbon ferromanganese <sup>1</sup> (cents per pound)	Silicomanganese <sup>1</sup> (cents per pound)	Manganese metal <sup>2</sup> (cents per pound)
March 6	2,500.00-2,650.00	205.00-210.00	110.00-115.00	210.00-215.00
March 13	2,800.00-2,900.00	205.00-210.00	110.00-117.00	210.00-215.00
March 20	2,850.00-3,000.00	210.00-215.00	115.00-120.00	215.00-220.00
March 27	3,000.00-3,100.00	215.00-220.00	115.00-120.00	215.00-220.00

### Ore Prices, dollars per metric ton unit, manganese content<sup>3</sup>

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
March 6	11.20-11.80	12.50-13.50
March 13	11.20-11.80	12.50-13.50
March 20	11.20-11.80	12.50-13.50
March 27	14.40-14.60	14.80-15.00

<sup>1</sup>Source: Platts Metals Week, dealer import price.

<sup>2</sup>Source: Ryan's Notes, cost and freight, China.

<sup>3</sup>To determine dollars per metric ton, multiply the manganese content percentage by the price.

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
2007:						
February	48,500	35,700	84,200	144	7,350	7,500
January-February	73,000	76,000	149,000	220	8,530	8,750
2008:						
January	3,910	77,900	81,800	2,200	586	2,790
February	43,700	47,200	90,900	45	556	601
Total	47,600	125,000	173,000	2,250	1,140	3,390

<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 FEBRUARY 2008<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	3,560	2,340	\$5,260,000	6,310	4,160	\$9,390,000
Georgia	--	--	--	26,100	19,500	40,100,000
Korea, Republic of	1,500	994	2,400,000	1,500	994	2,400,000
Mexico	1,400	913	1,660,000	2,700	1,770	2,760,000
Norway	6,260	3,990	9,820,000	13,200	8,450	20,600,000
Russia	--	--	--	1,600	1,060	2,780,000
Saudi Arabia	--	--	--	500	327	710,000
South Africa	11,600	7,870	18,100,000	22,000	14,900	33,600,000
Total	24,300	16,100	37,200,000	73,900	51,200	112,000,000

-- 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 changes incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN FEBRUARY 2008<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>						
Canada	5	4	\$6,870	5	4	\$6,870
China	5,550	4,550	14,600,000	9,790	8,240	24,200,000
Korea, Republic of	500	404	1,390,000	500	404	1,390,000
Mexico	641	518	1,360,000	1,520	1,230	2,380,000
Norway	157	126	298,000	584	469	1,520,000
United Kingdom	--	--	--	72	61	43,200
Total	6,860	5,600	17,700,000	12,500	10,400	29,600,000
<b>Medium carbon, 1%-2% C:</b>						
China	4,710	3,770	11,200,000	8,250	6,600	14,000,000
Korea, Republic of	1,500	1,230	3,540,000	1,500	1,230	3,540,000
Mexico	890	711	1,550,000	2,790	2,260	3,490,000
Norway	440	364	1,060,000	440	364	1,060,000
South Africa	1,920	1,550	4,730,000	8,090	6,550	15,000,000
Ukraine	199	180	616,000	199	180	616,000
Total	9,660	7,810	22,700,000	21,300	17,200	37,700,000
<b>High carbon:</b>						
China	4,780	3,610	7,490,000	9,800	7,470	14,900,000
India	500	386	885,000	1,200	894	1,830,000
Korea, Republic of	4,130	3,170	7,310,000	4,130	3,170	7,310,000
South Africa	10,300	8,000	16,200,000	28,600	22,100	43,000,000
Ukraine	--	--	--	6,040	4,740	10,200,000
Venezuela	58	41	72,400	58	41	72,400
Total	19,800	15,200	31,900,000	49,800	38,400	77,200,000
Grand total	36,300	28,600	72,300,000	83,600	66,000	145,000,000

-- 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 changes 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 FEBRUARY 2008<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>
<b>More than 20%, but less than 47% manganese:</b>						
Gabon	55,600	26,100	\$8,060,000	55,600	26,100	\$8,060,000
India	4	1	6,050	4	1	6,050
Total	55,600	26,100	8,060,000	55,600	26,100	8,060,000
<b>47% or more manganese:</b>						
Australia	8,200	4,250	1,150,000	8,200	4,250	1,150,000
Brazil	5,520	2,760	331,000	8,970	4,480	538,000
Gabon	15,700	9,230	3,610,000	15,700	9,230	3,610,000
Total	29,400	16,200	5,090,000	32,800	18,000	5,300,000
Grand total	85,000	42,400	13,100,000	88,400	44,100	13,400,000

<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 changes 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 FEBRUARY 2008<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	Year to date	
			Quantity	Customs value <sup>2</sup>
Australia	1,330	\$1,960,000	4,380	\$6,230,000
Belgium	88	237,000	108	284,000
Brazil	21	35,000	21	35,000
China	--	--	487	541,000
Germany	6	10,200	15	24,700
Japan	293	426,000	363	525,000
Mexico	505	762,000	505	762,000
Singapore	7	12,000	21	35,900
South Africa	23	40,500	23	40,500
Total	2,280	3,480,000	5,930	8,480,000

-- 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 changes incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN FEBRUARY 2008<sup>1</sup>

(Metric tons)

Source	Year to date			
	Gross weight	Customs value <sup>2</sup>	Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	540	\$1,640,000	4,360	\$12,400,000
Germany	500	1,470,000	500	1,470,000
New Caledonia	120	348,000	120	348,000
South Africa	111	230,000	187	383,000
Total	1,270	3,690,000	5,160	14,600,000
<b>Unwrought powder:</b>				
China	38	134,000	821	3,020,000
Korea, Republic of	25	92,100	44	143,000
Mexico	20	74,000	20	74,000
South Africa	641	2,810,000	899	3,470,000
Total	724	3,110,000	1,780	6,700,000
<b>Unwrought, other:</b>				
China	211	604,000	364	937,000
Germany	204	836,000	369	1,540,000
Russia	17	94,700	17	94,700
United Kingdom	38	158,000	113	469,000
Total	471	1,690,000	864	3,040,000
<b>Other manganese, wrought:</b>				
Mexico	--	--	102	496,000
Singapore	(3)	2,100	(3)	2,100
United Kingdom	(3)	5,860	(3)	5,860
Total	(3)	7,960	102	504,000
Grand total	2,460	8,500,000	7,910	24,800,000

-- 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 changes incurred in bringing the material into the United States.

<sup>3</sup>Less than ½ unit.

Note: There were no imports for consumption of metallic waste and scrap in February; the year-to-date total remained at 20 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 FEBRUARY 2008<sup>1</sup>

(Metric tons, gross weight)

Country	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	February	Year to date	February	Year to date	February	Year to date	February	Year to date
Belgium	--	--	--	--	--	--	--	77
Canada	80	122	--	76	--	4	12	25
Chile	--	--	--	9	--	--	--	--
China	--	4,300	--	--	--	--	--	113
Germany	--	19	--	--	--	--	--	38
Hong Kong	--	--	--	--	--	--	82	82
India	--	--	--	--	--	--	4	23
Israel	--	16	--	--	--	--	--	--
Italy	--	--	--	--	--	--	--	11
Japan	--	2	--	6	217	217	--	--
Korea, Republic of	--	30	--	--	--	--	--	--
Mexico	10	10	--	--	88	88	--	7
Peru	--	--	--	--	--	--	8	8
Vietnam	--	--	--	--	--	--	--	11
Total	90	4,500	--	91	305	309	106	396

-- 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.

Note: Exports of ferromanganese with more than 2% carbon totaled 315 metric tons, of which 302 metric tons went to Canada, 7 metric tons to Malaysia, and 7 metric tons to Mexico, to give a year-to-date total of 594 metric tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN FEBRUARY 2008, 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)
Imports for consumption:						
Manganese oxides other than dioxide	584	\$430	Norway 500; \$200	1,070	\$747	Norway 500; \$200
Manganites, manganates, and other permanganates	16	23	Poland 16; \$23	16	23	Poland 16; \$23
Potassium permanganate	99	249	India 54; \$138	207	520	Czech Republic 103; \$255
Sodium permanganate	35	74	China 35; \$74	71	145	China 71; \$145
Sulfates, basket category, including manganese sulfate	4,760	3,020	Chile 3,350; \$1,420	6,130	4,040	Chile 3,350; \$1,420
Exports:						
Manganese dioxide	799	688	Canada 495; \$287	1,710	1,310	Canada 1,090; \$615
Manganese oxides other than dioxide	1,010	1,060	Canada 569; \$246	2,340	2,040	Canada 1,630; \$669
Manganites, manganates, and other permanganates	33	120	Mexico 19; \$33	41	155	Mexico 19; \$33
Potassium permanganate	177	402	Belgium 144; \$291	415	913	Belgium 344; \$663
Sodium permanganate	51	173	China 27; \$71	177	525	China 85; \$221
Sulfates, basket category, including manganese sulfate	2,030	2,600	Canada 1,620; \$1,980	3,860	4,570	Canada 3,200; \$3,560

<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.