

# Mineral Industry Surveys

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## **MANGANESE IN FEBRUARY 2010**

Preliminary reported data (gross weight) for February 2010 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 36,800 metric tons (t), according to the U.S. Geological Survey. This was a slight decrease from the revised amount consumed in January 2010. Manganese ore consumption in the first 2 months of 2010 was 74,100 t, which was a 4% increase from the revised amount consumed during the first 2 months of 2009 (71,300 t). Industry stocks of ore at the end of February 2010 were 181,000 t, which was slightly less than that at the end of January 2010.

Data for U.S. manganese imports and exports for January 2010 are published in this issue. On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal imports for January 2010 were 55% lower and 8% lower,

respectively, than those in December 2009. U.S. imports of manganese ore plus dioxide and manganese ferroalloys plus metal during January 2010 were 97% lower and 5% lower, respectively, than those during the January 2009 (table 1).

On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal exports for January 2010 were 60% lower and 50% lower, respectively, than those in December 2009. U.S. exports of manganese ore and manganese ferroalloys plus metal during January 2010 were 50% less and 60% less, respectively, than those during January 2009 (table 1).

#### **Prices**

Prices for manganese materials in February 2010, manganese content, are listed below.

### Ferroalloys prices<sup>1</sup>

	<u>Price Range</u>	Average Price
High-carbon ferromanganese <sup>2</sup>	1,300.00-1,490.00	1,411.25
Medium-carbon ferromanganese <sup>3</sup>	110.00-135.00	123.75
Silicomanganese <sup>3</sup>	60.00-67.00	63.25

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

	<u>Price Range</u>	Average Low, Mid, and High Prices
Manganese metal <sup>3</sup>	160.00-165.00	160.00-162.50-165.00
36%-39% Manganese ore <sup>5</sup>	6.20-6.70	6.20-6.45-6.70
44% Manganese ore <sup>5</sup>	6.90-7.50	6.90-7.20-7.50
48% Manganese ore <sup>5</sup>	7.00-7.60	7.00-7.30-7.60

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

<sup>&</sup>lt;sup>2</sup>Dollars per gross ton.

<sup>&</sup>lt;sup>3</sup>Cents per pound.

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

<sup>&</sup>lt;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

(Metric tons, manganese content)<sup>2</sup>

	Impo	Imports for consumption			Exports	
	Ore and	Ore and Ferroalloy		Ferroalloy		
	dioxide	and metal	Total	Ore	and metal	Total
2009, January	25,600	36,600	62,100	102	2,460	2,560
2010, January	782	34,600	35,400	51	992	1,040

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

Source: U.S. Census Bureau.

TABLE 2 U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN JANUARY 2010  $\dot{0}$ 

(Metric tons)

	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>
Australia	2,770	1,930	\$2,970,000
Bahrain	754	502	971,000
Georgia	1,020	696	969,000
Mexico	2,000	1,320	2,130,000
Norway	5,090	2,910	8,090,000
Saudi Arabia	1,220	798	1,340,000
South Africa	10,200	6,850	11,100,000
Total	23,100	15,000	27,500,000

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

<sup>&</sup>lt;sup>2</sup>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

<sup>&</sup>lt;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.

 $\label{eq:table 3} \text{U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN JANUARY 2010}$ 

#### (Metric tons)

	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>
Low carbon:			
China	2,880	2,350	\$6,020,000
Mexico	2,850	2,290	5,270,000
Netherlands	220	178	429,000
Norway	494	415	866,000
Total	6,450	5,230	12,600,000
Medium carbon, 1%-2% C:			
Korea, Republic of	1,700	1,360	2,860,000
Mexico	1,720	1,390	2,810,000
Norway	3,500	2,820	5,800,000
South Africa	720	565	1,230,000
Total	7,640	6,130	12,700,000
Medium carbon, 2%-4% C, South Africa	18	16	44,300
High carbon:			
Norway	20	16	25,000
South Africa	7,090	5,500	7,420,000
Total	7,110	5,520	7,450,000
Grand total	21,200	16,900	32,800,000

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

Source: U.S. Census Bureau.

 $TABLE\ 4$  U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN JANUARY  $2010^{1,\,2}$ 

#### (Metric tons)

	Gross	Mn	Customs
Source	weight	content	value <sup>3</sup>
More than 20%, but less than 47% manganese			
47% or more manganese, Morocco	7	7 '	\$11,500
Total	7	7	11,500

<sup>--</sup> Zero.

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

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

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>4</sup>Reported manganese content is too high and is likely that of natural manganese dioxide. The percentage of manganese contained in natural manganese dioxide typically ranges from 44 to 54.

# TABLE 5 $\mbox{U.s. IMPORTS FOR CONSUMPTION OF MANGANESE} \\ \mbox{DIOXIDE IN JANUARY 2010}^{\mbox{l}}$

(Metric tons, gross weight)

		Customs
Source	Quantity	value <sup>2</sup>
Germany	22	\$37,000
Japan	502	1,080,000
Singapore		18,200
South Africa	759	1,940,000
Total	1,290	3,080,000

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

Source: U.S. Census Bureau.

 $TABLE\ 6$  U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN JANUARY 2010

#### (Metric tons)

	Gross	Customs	
Source	weight	value <sup>2</sup>	
Unwrought flake:			
China	740	\$1,870,000	
Hong Kong	444	1,150,000	
South Africa	171	493,000	
Vietnam	20	47,900	
Total	1,380	3,550,000	
Unwrought powder:			
China	60	141,000	
South Africa	137	450,000	
Total	197	591,000	
Unwrought, other:			
China	918	1,980,000	
Germany	49	134,000	
South Africa	114	370,000	
United Kingdom	14	52,900	
Total	1,100	2,540,000	
Other manganese, wrought:			
China	20	55,500	
France	8	31,600	
Mexico	11	40,800	
Total	39	128,000	
Grand total	2,710	6,810,000	

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

Note: Imports for consumption of metallic waste and scrap totaled 56 tons, all of which was from Canada.

<sup>&</sup>lt;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.

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TABLE 7 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN JANUARY 2010

(Metric tons, gross weight)

			Ferromanganese,		
Country	Manganese ore	2% or less C	More than 2% C	Silicomanganese	Manganese metal <sup>2</sup>
Australia					19
Belgium				100	98
Brazil			25		
Canada		57	330	323	2
China					43
Germany					14
Hong Kong					69
India					21
Japan					35
Malaysia	95				1
Mexico					7
Singapore			5		
Spain	8			20	
Turkey				80	
Vietnam					8
Total	102	57	360	523	317

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 ${\it TABLE~8}$  U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN JANUARY 2010, BY CLASS

			Principal sources
			and destinations:
	Gross weight	Value <sup>2</sup>	gross weight (metric tons)
Class	(metric tons)	(thousands)	value <sup>2</sup> (thousands)
Imports for consumption:			
Manganese oxides other than dioxide	1,100	\$850	South Africa 721; \$399
Manganites, manganates, and			
other permanganates			
Potassium permanganate	166	535	India 108; \$355
Sodium permanganate	20	46	China 20; \$46
Sulfates, basket category,			
including manganese sulfate	2,810	2,470	Mexico 1,140; \$991
Exports:			
Manganese dioxide	480	747	Canada 308; \$279
Manganese oxides other than dioxide	623	1,140	Canada 207; \$218
Manganites, manganates, and			
other permanganates	2	4	Canada 2; \$4
Potassium permanganate	302	994	Belgium 164; \$508
Sodium permanganate	87	192	Taiwan 20; \$51
Sulfates, basket category,			
including manganese sulfate	1,940	1,330	Canada 1,760; \$803
Zero	<u> </u>		•

<sup>--</sup> Zero.

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

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

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits.

<sup>&</sup>lt;sup>2</sup>For imports, Customs value; for exports, free alongside ship value.