

Mineral Industry Surveys

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MANGANESE IN FEBRUARY 2012

Preliminary domestic data (gross weight) for February 2012 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 45,600 metric tons (t). This was a slight decrease from the amount consumed in January 2012 (46,000 t). Manganese ore consumption during the first 2 months of 2012 was 91,600 t. This was a 15% increase from the revised amount that was consumed during the same period in 2011 (80,000 t). Industry stocks of ore at the end of February 2012 were 232,000 t, which was a 9% increase from those at the end of January 2012 (212,000 t).

On a contained-weight basis, U.S. manganese ore plus dioxide and manganese ferroalloys plus metal imports for February 2012 were 5% higher and 34% lower, respectively, than those in January 2012. U.S. imports of manganese ore plus

dioxide and manganese ferroalloys plus metal during the first 2 months of 2012 were 36% lower and 17% higher, respectively, than those during the same period in 2011 (table 1).

On a contained-weight basis, U.S. manganese ore and manganese ferroalloys plus metal exports for February 2012 were 4 times higher and slightly higher, respectively, than those in January 2012. U.S. exports of manganese ore and manganese ferroalloys plus metal during the first 2 months of 2012 were 134% higher and 48% lower, respectively, than those during the same period in 2011 (table 1).

Prices

Prices for manganese materials in February 2012, manganese content, are listed below.

Ferroalloys prices¹

	<u>Price Range</u>	<u>Average Price</u>
High-carbon ferromanganese ²	1,175.00–1,250.00	1,213.25
Medium-carbon ferromanganese ³	92.00–95.00	93.70
Silicomanganese ³	55.00–65.00	62.80

Manganese metal and ore prices⁴

	<u>Price Range</u>	<u>Average Low, Mid, and High Prices</u>
Manganese metal ^{3, 5}	152.00–158.00	152.00–155.00–158.00
36%–39% Manganese ore ⁶	3.90–4.10	3.98–4.04–4.10
44% Manganese ore ⁶	4.40–4.50	4.40–4.45–4.50
48% Manganese ore ⁶	4.70–4.75	4.70–4.73–4.75

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

²Dollars per gross ton.

³Cents per pound.

⁴Source: Ryan's Notes; average prices reported for the price range.

⁵Ryan's Notes North American transaction prices, electrolytic manganese metal flake, 99.9% manganese, f.o.b. producing point or Chicago/Pittsburgh warehouse.

⁶Dollars per metric ton unit, contained manganese, cost and freight, China. 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 MANGANESE¹

(Metric tons, manganese content)²

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2011:						
January	28,900	44,500	73,400	36	1,080	1,120
February	9,160	30,400	39,600	46	1,240	1,290
January–February	38,000	75,000	113,000	83	2,320	2,410
2012:						
January	11,800	53,000	64,800	36	603	639
February	12,400	34,900	47,300	158	616	775
January–February	24,200	88,000	112,000	194	1,220	1,410

¹Data 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.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN 2012¹

(Metric tons)

Source	January			February			January–February		
	Gross weight	Mn content	Customs value ²	Gross weight	Mn content	Customs value ²	Gross weight	Mn content	Customs value ²
Australia	--	--	--	1,870	1,250	\$1,540,000	1,870	1,250	\$1,540,000
Azerbaijan	1,500	984	\$1,700,000	--	--	--	1,500	984	1,700,000
Canada	16	11	9,400	--	--	--	16	11	9,400
Georgia	--	--	--	15,700	11,100	13,600,000	15,700	11,100	13,600,000
India	--	--	--	213	122	326,000	213	122	326,000
Korea, Republic of	--	--	--	20	13	23,000	20	13	23,000
Mexico	1,000	654	981,000	19	12	33,300	1,020	666	1,010,000
Norway	3,110	1,950	5,080,000	1,860	1,160	3,230,000	4,970	3,110	8,310,000
South Africa	10,700	7,160	11,400,000	4,020	2,670	3,850,000	14,700	9,830	15,200,000
Spain	1,650	992	2,660,000	--	--	--	1,650	992	2,660,000
Total	18,000	11,800	21,800,000	23,700	16,300	22,600,000	41,700	28,000	44,400,000

-- 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 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN 2012¹

(Metric tons)

Source	January			February			January–February		
	Gross weight	Mn content	Customs value ²	Gross weight	Mn content	Customs value ²	Gross weight	Mn content	Customs value ²
Low carbon:									
China	977	920	\$2,750,000	80	75	\$182,000	1,060	995	\$2,930,000
India	416	333	764,000	837	699	1,490,000	1,250	1,030	2,250,000
Korea, Republic of	40	36	110,000	--	--	--	40	36	110,000
Mexico	1,200	972	2,020,000	--	--	--	1,200	972	2,020,000
Norway	1,080	867	1,810,000	721	581	1,170,000	1,800	1,450	2,980,000
Vietnam	54	43	92,300	228	186	339,000	282	229	431,000
Total	3,770	3,170	7,530,000	1,870	1,540	3,190,000	5,630	4,710	10,700,000
Medium carbon, 1%–2% C:									
Korea, Republic of	--	--	--	900	725	1,440,000	900	725	1,440,000
Mexico	260	198	527,000	118	94	213,000	378	292	740,000
Norway	1,080	877	1,590,000	2,100	1,700	2,790,000	3,180	2,580	4,380,000
South Africa	2,540	2,060	4,540,000	21	15	45,900	2,560	2,070	4,590,000
Total	3,880	3,130	6,650,000	3,140	2,540	4,490,000	7,020	5,670	11,100,000
High carbon:									
Australia	12,500	9,670	12,100,000	--	--	--	12,500	9,670	12,100,000
China	--	--	--	83	60	69,700	83	60	69,700
France	2,500	1,910	3,000,000	--	--	--	2,500	1,910	3,000,000
India	--	--	--	54	40	45,000	54	40	45,000
Korea, Republic of	--	--	--	20	15	20,800	20	15	20,800
Norway	--	--	--	2,300	1,800	2,080,000	2,300	1,800	2,080,000
Saudi Arabia	--	--	--	396	279	332,000	396	279	332,000
South Africa	20,300	15,700	23,500,000	7,400	5,710	6,610,000	27,700	21,400	30,100,000
Ukraine	4,590	3,570	4,590,000	--	--	--	4,590	3,570	4,590,000
Total	39,900	30,900	43,200,000	10,300	7,900	9,160,000	50,200	38,800	52,300,000
Grand total	47,500	37,200	57,400,000	15,300	12,000	16,800,000	62,800	49,200	74,200,000

-- 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 4
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN 2012^{1,2}

(Metric tons)

Source	January			February			January–February		
	Gross weight	Mn content	Customs value ³	Gross weight	Mn content	Customs value ³	Gross weight	Mn content	Customs value ³
More than 20%, but less than 47% manganese:									
Brazil	--	--	--	2,580	682	\$669,000	2,580	682	\$669,000
Gabon	11,000	4,730	\$1,410,000	--	--	--	11,000	4,730	1,410,000
Mexico	1,510	543	295,000	--	--	--	1,510	543	295,000
Total	12,500	5,270	1,710,000	2,580	682	669,000	15,100	5,960	2,370,000
47% or more manganese:									
Australia	--	--	--	20,700	10,300	3,120,000	20,700	10,300	3,120,000
Belgium	5	5	8,400	66	48	82,700	72	53	91,100
Brazil	--	--	--	53	27	18,400	53	27	18,400
Gabon	11,000	5,340	2,150,000	--	--	--	11,000	5,340	2,150,000
Morocco	192	108	186,000	40	37	49,400	232	145	235,000
Total	11,200	5,450	2,350,000	20,800	10,400	3,270,000	32,000	15,800	5,610,000
Grand total	23,700	10,700	4,050,000	23,400	11,100	3,930,000	47,100	21,800	7,990,000

-- Zero.

¹Quantities for general imports and imports for consumption are identical.

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

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
DIOXIDE IN 2012¹

(Metric tons, gross weight)

Source	January		February		January–February	
	Quantity	Customs value ²	Quantity	Customs value ²	Quantity	Customs value ²
Belgium	252	\$149,000	101	\$45,100	353	\$194,000
Japan	504	1,200,000	774	1,850,000	1,280	3,050,000
Mexico	40	35,100	--	--	40	35,100
Singapore	11	19,400	23	38,800	34	58,100
South Africa	1,010	2,410,000	1,230	2,970,000	2,230	5,370,000
Turkey	--	--	117	55,400	117	55,400
Total	1,820	3,820,000	2,240	4,950,000	4,050	8,770,000

-- 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 bring the material into the United States.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN 2012¹

(Metric tons)

Source	January		February		January–February	
	Gross weight	Customs value ²	Gross weight	Customs value ²	Gross weight	Customs value ²
Unwrought flake:						
China	971	\$2,850,000	3,190	\$8,710,000	4,160	\$11,600,000
Japan	--	--	1	2,960	1	2,960
Mexico	--	--	15	69,300	15	69,300
South Africa	56	219,000	75	270,000	131	489,000
Vietnam	--	--	200	547,000	200	547,000
Total	1,030	3,070,000	3,480	9,600,000	4,510	12,700,000
Unwrought powder:						
China	120	356,000	19	59,700	139	416,000
Mexico	29	142,000	24	110,000	53	252,000
South Africa	239	956,000	158	599,000	397	1,550,000
Spain	1	2,220	--	--	1	2,220
Total	389	1,460,000	200	768,000	590	2,220,220
Unwrought, other:						
China	2,590	7,090,000	2,790	7,570,000	5,390	14,700,000
South Africa	19	72,000	114	414,000	133	486,000
Spain	75	275,000	50	283,000	125	558,000
Total	2,690	7,440,000	2,960	8,270,000	5,650	15,700,000
Other manganese, wrought:						
China	1	8,980	2	4,830	3	13,800
Germany	--	--	1	28,800	1	28,800
Japan	(3)	35,400	--	--	(3)	35,400
Total	1	44,400	3	33,600	4	78,000
Grand total	4,100	12,000,000	6,650	18,700,000	10,700	30,700,000

-- 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.

Note: There were no imports for consumption of metallic waste and scrap in January. In February, there were 52 metric tons (t) all of which was from Canada to give a January–February total of 52 t.

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 2012¹

(Metric tons, gross weight)

Country	January					February				
	Manganese ore	Ferromanganese,		Silico-manganese	Manganese metal ²	Manganese ore	Ferromanganese,		Silico-manganese	Manganese metal ²
		2% or less C	More than 2% C				2% or less C	More than 2% C		
Aruba	--	--	--	--	--	78	--	--	--	--
Belgium	--	--	--	--	--	--	--	--	--	24
Brazil	--	--	5	--	--	--	--	5	39	--
Canada	--	49	81	369	5	102	29	50	244	5
China	--	--	--	--	52	51	--	--	--	109
Costa Rica	--	--	--	3	6	--	--	--	--	6
Dominican Republic	--	--	--	--	--	--	--	--	9	--
Germany	--	--	--	--	--	--	--	--	--	8
India	--	--	--	--	--	--	--	--	--	52
Indonesia	3	--	--	--	--	--	--	--	--	--
Japan	--	20	4	--	--	--	20	--	--	46
Korea, Republic of	34	--	--	--	--	68	--	--	--	--
Mexico	--	40	--	133	48	--	--	39	57	11
Netherlands	35	--	--	--	--	18	--	--	--	--
Singapore	--	--	--	--	--	--	--	2	--	--
Saint Lucia	--	--	--	--	--	--	--	--	--	13
Taiwan	--	--	--	--	1	--	--	--	--	--
Total	72	110	90	505	112	316	49	95	350	272

Country	January–February				
	Manganese Ore	Ferromanganese,		Silico-manganese	Manganese metal ²
		2% or less C	More than 2% C		
Aruba	78	--	--	--	--
Belgium	--	--	--	--	24
Brazil	--	--	10	39	--
Canada	102	79	131	614	10
China	51	--	--	--	161
Costa Rica	--	--	--	3	12
Dominican Republic	--	--	--	9	--
Germany	--	--	--	--	8
India	--	--	--	--	52
Indonesia	3	--	--	--	--
Japan	--	40	4	--	46
Korea, Republic of	102	--	--	--	--
Mexico	--	40	39	190	59
Netherlands	53	--	--	--	--
Singapore	--	--	2	--	--
Saint Lucia	--	--	--	--	13
Taiwan	--	--	--	--	1
Total	389	159	186	855	385

-- Zero.

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

²Includes 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 JANUARY 2012, BY CLASS¹

Class	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	351	\$420	Brazil 158; \$218
Manganites, manganates, and other permanganates	--	--	XX
Potassium permanganate	244	785	India 215; \$679
Sodium permanganate	36	93	China 36; \$93
Sulfates, basket category, including manganese sulfate	6,060	5,670	Chile 2,270; \$1,750
Exports:			
Manganese dioxide	607	1,200	Canada 316; \$250
Manganese oxides other than dioxide	1,170	1,550	Mexico 459; \$497
Manganites, manganates, and other permanganates	28	72	Canada 28; \$72
Potassium permanganate	277	690	Belgium 163; \$396
Sodium permanganate	44	112	Mexico 19; \$39
Sulfates, basket category, including manganese sulfate	1,070	962	Canada 830; \$462

XX Not applicable. -- Zero.

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

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

Source: U.S. Census Bureau.

TABLE 8a
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN FEBRUARY 2012, BY CLASS¹

Class	Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)	January–February		
				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	232	\$226	Mexico 136; \$126	583	\$646	Mexico 216; \$200
Manganites, manganates, and other permanganates	--	--	XX	--	--	XX
Potassium permanganate	154	496	India 126; \$406	398	1,280	India 341; \$1,090
Sodium permanganate	20	49	China 20; \$49	56	141	China 56; \$141
Sulfates, basket category, including manganese sulfate	4,400	4,350	China 1,650; \$1,370	10,500	10,000	Mexico 3,150; \$2,640
Exports:						
Manganese dioxide	902	1,300	Canada 551; \$463	1,510	2,500	Canada 867; \$712
Manganese oxides other than dioxide	571	867	Canada 125; \$132	1,740	2,420	Canada 505; \$546
Manganites, manganates, and other permanganates	26	72	Canada 26; \$71	54	143	Canada 54; \$143
Potassium permanganate	326	781	Belgium 277; \$583	603	1,470	Belgium 440; \$979
Sodium permanganate	85	164	Belgium 59; \$92	129	276	Belgium 59; \$92
Sulfates, basket category, including manganese sulfate	1,230	1,110	Canada 984; \$566	2,300	2,070	Canada 1,810; \$1,030

XX Not applicable. -- Zero.

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

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

Source: U.S. Census Bureau.