



Mineral Industry Surveys

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MANGANESE IN DECEMBER 2012

Preliminary domestic data (gross weight) for December 2012 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 49,200 metric tons (t). This was a 4% increase from the amount consumed in November 2012. Manganese ore consumption during 2012 was 535,000 t, which was slightly more than the revised amount that was consumed in 2011

(532,000 t). Industry stocks of ore at the end of December 2012 were 207,000 t, which was a 10% decrease from those at the end of November 2012.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected manganese-containing materials in December 2012.

TABLE 1
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN DECEMBER 2012

		High	Low	Average	Average low, mid, and high
Manganese ferroalloys: ¹					
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,180.00	1,070.00	1,160.00	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	88.00	85.00	85.50	XX
Silicomanganese, 65% manganese	do.	54.50	50.50	53.06	XX
Manganese metal, 99.9% manganese flake ²	cents per pound	136.00	126.50	XX	131.86–133.07–134.29
Manganese ore: ^{3,4}					
36%–39% manganese	dollars per metric ton unit contained manganese	4.90	4.75	XX	4.75–4.83–4.90
44% manganese	do.	5.25	4.95	XX	4.95–5.10–5.25
46% manganese	do.	5.30	5.05	XX	5.05–5.18–5.30

do. Ditto. XX Not applicable.

¹Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

²Ryan'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.

³Ryan'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
2011:						
January–December	283,000	541,000	824,000	681	12,500	13,200
January	28,900	44,500	73,400	36	1,080	1,120
February	9,160	30,400	39,600	46	1,240	1,290
March	50,900	68,900	120,000	73	1,740	1,810
April	1,720	27,800	29,500	61	1,150	1,210
May	21,100	51,000	72,100	33	1,800	1,830
June	26,800	68,700	95,500	59	519	578
July	11,500	57,400	69,000	82	669	750
August	25,500	50,600	76,100	65	902	967
September	38,800	55,800	94,600	--	611	611
October	16,900	22,300	39,200	84	708	792
November	25,800	32,700	58,600	113	642	755
December	26,300	30,600	56,900	28	1,470	1,500
2012:						
January	11,800	53,000	64,800	36	603	639
February	12,400	34,900	47,300	158	616	775
March	24,500	54,000	78,400	352	848	1,200
April	3,960	59,500	63,400	106	816	922
May	15,500	49,500	65,000	42	620	662
June	30,100	21,000	51,100	19	576	595
July	19,900	77,300	97,300	57	687	744
August	8,020	59,900	67,900	12	1,360	1,370
September	44,600	59,100	104,000	27	1,490	1,510
October	17,800	32,500	50,300	11	1,120	1,130
November	25,900	51,400	77,400	19	1,210	1,230
December	26,400	36,100	62,500	18	732	750
January–December	241,000	588,000	829,000	856	10,700	11,500

-- Zero.

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.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN DECEMBER 2012¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–December		
				Gross weight	Mn content	Customs value ²
Australia	11,600	7,780	\$11,500,000	26,400	17,700	\$27,700,000
Azerbaijan	--	--	--	1,500	984	1,700,000
Bahrain	100	65	106,000	100	65	106,000
Canada	--	--	--	50	34	39,000
China	--	--	--	10	5	10,600
Georgia	1,390	969	1,540,000	114,000	77,300	122,000,000
Germany	--	--	--	216	95	281,000
India	312	186	465,000	4,040	2,330	6,280,000
Indonesia	--	--	--	602	393	786,000
Italy	--	--	--	1,270	843	1,740,000
Korea, Republic of	--	--	--	1,120	697	1,620,000
Macedonia	--	--	--	6,110	3,970	8,530,000
Mexico	3,000	1,960	3,080,000	27,300	17,800	32,000,000
Norway	2,510	1,520	4,000,000	29,700	18,500	50,700,000
Russia	--	--	--	6,200	4,210	8,380,000
South Africa	5,000	3,310	6,080,000	110,000	73,400	133,000,000
Spain	--	--	--	18,800	12,300	23,800,000
Vietnam	--	--	--	592	370	674,000
Total	23,900	15,800	26,700,000	348,000	231,000	419,000,000

-- 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 FERROMANGANESE IN DECEMBER 2012¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–December		
				Gross weight	Mn content	Customs value ²
Low carbon:						
China	61	55	\$157,000	6,030	5,640	\$16,600,000
India	470	383	819,000	6,920	5,600	11,600,000
Korea, Republic of	--	--	--	2,540	2,310	6,630,000
Mexico	500	403	868,000	8,490	6,840	14,600,000
Norway	418	338	662,000	9,610	7,770	15,400,000
South Africa	--	--	--	120	110	330,000
Vietnam	--	--	--	1,040	899	2,040,000
Total	1,450	1,180	2,510,000	34,700	29,200	67,300,000
Medium carbon, 1%–2% C:						
China	--	--	--	80	61	191,000
India	--	--	--	4	3	5,360
Korea, Republic of	--	--	--	20,400	16,500	30,100,000
Mexico	303	229	671,000	2,380	1,810	4,930,000
Norway	600	485	779,000	16,400	13,400	22,300,000
South Africa	1,270	1,030	1,950,000	27,100	21,800	40,600,000
Turkey	--	--	--	19	14	63,300
Total	2,170	1,750	3,400,000	66,500	53,500	98,200,000
Medium carbon, 2%–4% C:						
Germany	--	--	--	11	9	31,100
South Africa	--	--	--	165	137	383,000
Total	--	--	--	176	146	414,000
High carbon:						
Australia	5,500	4,250	5,060,000	32,300	25,200	31,400,000
Bahrain	--	--	--	102	81	145,000
Brazil	--	--	--	419	308	412,000
Canada	19	12	20,600	37	25	53,900
China	--	--	--	481	379	547,000
France	--	--	--	2,500	1,910	3,000,000
India	--	--	--	513	387	496,000
Korea, Republic of	--	--	--	3,430	2,650	3,300,000
Norway	--	--	--	13,100	10,200	13,400,000
Saudi Arabia	--	--	--	1,400	1,010	1,180,000
South Africa	12,800	9,930	13,700,000	199,000	153,000	209,000,000
Spain	--	--	--	250	189	289,000
Ukraine	19	12	20,400	46,700	35,800	52,800,000
Total	18,400	14,200	18,800,000	300,000	231,000	316,000,000
Grand total	22,000	17,100	24,700,000	401,000	314,000	482,000,000

-- 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 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN DECEMBER 2012^{1,2}

(Metric tons)

Source	Gross weight	Mn content	Customs value ⁴	January–December ³		
				Gross weight	Mn content	Customs value ⁴
More than 20%, but less than 47% manganese:						
Brazil	--	--	--	2,580	682	\$669,000
Colombia	--	--	--	18	5	4,170
Gabon	--	--	--	26,500	11,400	3,380,000
Mexico	1,520	553	\$304,000	6,100	2,200	1,210,000
South Africa	--	--	--	114,000	45,100	16,800,000
Total	1,520	553	304,000	149,000	59,300	22,100,000
47% or more manganese:						
Australia	--	--	--	30,100	15,000	5,740,000
Belgium	1,380	689	82,700	6,980	3,510	529,000
Brazil	--	--	--	6,150	3,290	2,450,000
Canada	--	--	--	1	1	4,760
China	--	--	--	19	18	88,800
Gabon	47,700	24,300	10,500,000	276,000	141,000	63,600,000
Japan	--	--	--	(5)	(5)	14,800
Korea, Republic of	--	--	--	20	(5)	137,000
Morocco	--	--	--	5,280	2,670	538,000
Poland	--	--	--	7	4	5,760
South Africa	--	--	--	33,000	1,290	5,660,000
Turkey	--	--	--	52	24	16,900
United Kingdom	--	--	--	1	(5)	2,990
Total	49,000	25,000	10,600,000	357,000	167,000	78,800,000
Grand total	50,600	25,500	10,900,000	506,000	226,000	101,000,000

-- 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.

³May include revisions to previously published data.

⁴Customs 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.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

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

(Metric tons, gross weight)

Source	Quantity	Customs value ²	January–December	
			Quantity	Customs value ²
Belgium	60	\$26,000	793	\$448,000
Brazil	19	24,700	38	46,500
Germany	--	--	89	162,000
India	--	--	25	20,500
Japan	666	1,590,000	8,720	20,700,000
Korea, Republic of	--	--	13	25,200
Mexico	--	--	40	35,100
Norway	--	--	260	197,000
Singapore	11	19,400	148	252,000
South Africa	735	1,580,000	13,500	31,100,000
Turkey	--	--	1,040	535,000
United Kingdom	--	--	(3)	3,840
Total	1,490	3,240,000	24,700	53,500,000

-- 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.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN DECEMBER 2012¹

(Metric tons)

Source	Gross weight	Customs value ²	January–December	
			Gross weight	Customs value ²
Unwrought flake:				
Brazil	--	--	21	\$61,400
China	245	\$641,000	12,600	33,800,000
Hong Kong	--	--	60	160,000
Japan	--	--	14	46,300
Mexico	37	166,000	180	785,000
South Africa	611	2,030,000	7,100	23,700,000
Taiwan	--	--	60	160,000
Vietnam	20	46,200	327	913,000
Total	913	2,880,000	20,300	59,600,000
Unwrought powder:				
China	--	--	258	741,000
Mexico	--	--	53	252,000
South Africa	39	180,000	1,980	8,180,000
Spain	--	--	1	2,220
United Arab Emirates	(3)	3,480	(3)	3,480
Total	39	183,000	2,290	9,180,000
Unwrought, other:				
China	1,990	4,410,000	19,000	49,900,000
Germany	13	35,000	38	115,000
Netherlands	--	--	1	3,690
Poland	--	--	(3)	7,200
South Africa	133	527,000	705	2,730,000
Spain	--	--	869	3,050,000
Vietnam	--	--	100	286,000
Total	2,140	4,980,000	20,700	56,100,000
Other manganese, wrought:				
China	(3)	3,260	32	145,000
Finland	--	--	(3)	20,100
Germany	--	--	1	82,700
Japan	(3)	3,680	(3)	111,000
Mexico	--	--	21	98,100
Total	(3)	6,940	54	457,000
Grand total	3,090	8,050,000	43,400	125,000,000

-- Zero.

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

²Customs 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.

³Less than ½ unit.

Note: Imports for consumption of metallic waste and scrap totaled 113 metric tons (t), all of which was from Canada, to give a January–December total of 870 t.

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 DECEMBER 2012^{1,2}

Source	Gross weight (metric tons)	F.a.s. ³ value (thousands)	January–December	
			Gross weight (metric tons)	F.a.s. ³ value (thousands)
Ore and concentrates with 20% or more manganese:				
Aruba	--	--	78	\$20
Belgium	--	--	18	61
Canada	19	\$16	348	395
China	--	--	51	66
Denmark	--	--	77	32
Korea, Republic of	--	--	272	351
Latvia	--	--	19	11
Netherlands	--	--	793	950
Panama	17	13	17	13
United Kingdom	--	--	21	28
Other (5 countries)	--	--	19	61
Total	36	29	1,710	1,990
Ferromanganese:				
2% or less carbon:				
Canada	448	609	1,420	2,000
Guatemala	--	--	23	43
Hungary	--	--	3	5
Japan	--	--	220	501
Mexico	--	--	108	195
Saudi Arabia	--	--	25	55
Spain	--	--	20	48
Taiwan	--	--	3	6
Turkey	--	--	179	437
Total	448	609	2,000	3,290
More than 2% carbon:				
Brazil	14	39	48	141
Cameroon	--	--	8	26
Canada	--	--	721	908
Chile	--	--	33	93
China	85	120	579	727
Colombia	--	--	8	21
Malaysia	22	11	1,790	1,000
Mexico	--	--	91	130
Saudi Arabia	--	--	11	31
Singapore	--	--	38	108
Other (6 countries)	2	5	22	62
Total	123	175	3,350	3,250
Silicomanganese:				
Brazil	--	--	312	760
Canada	174	240	5,160	6,910
Dominican Republic	--	--	9	21
Indonesia	--	--	10	16
Mexico	--	--	362	514
Total	174	240	5,850	8,220
Metal, including alloys and waste and scrap:⁴				
Belgium	--	--	76	166
Canada	--	--	149	385
China	79	172	995	2,980
France	--	--	128	576
Germany	38	83	204	444
Guatemala	--	--	68	259
India	4	9	184	419
Japan	9	39	107	304
Mexico	17	38	271	763
Norway	--	--	128	576
Other (15 countries)	19	41	266	634
Total	166	382	2,580	7,510
Grand total	947	1,440	15,500	24,300

See footnotes at end of table.

TABLE 8—Continued
 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,
 AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN DECEMBER 2012^{1,2}

-- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the leading countries.

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

³Free alongside ship.

⁴Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN DECEMBER 2012, BY CLASS¹

Class	Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)	January–December		
				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	875	\$770	South Africa 598; \$441	5,900	\$5,720	South Africa 2,470; \$2,070
Manganites, manganates, and other permanganates	--	--	XX	83	492	China 53; \$134
Potassium permanganate	66	205	India 66; \$205	1,480	4,620	India 1,420; \$4,410
Sodium permanganate	50	122	China 50; \$120	449	1,060	China 448; \$1,040
Sulfates, basket category, including manganese sulfate	3,990	4,790	Mexico 1,340; \$1,190	55,200	56,600	Mexico 18,400; \$16,200
Exports:						
Manganese dioxide	770	1,510	Canada 458; \$426	9,260	16,800	Canada 5,250; \$4,470
Manganese oxides other than dioxide	527	1,250	Canada 196; \$230	8,630	14,100	Canada 2,420; \$2,920
Manganites, manganates, and other permanganates	1	3	Canada 1; \$3	189	595	Canada 162; \$424
Potassium permanganate	232	625	Belgium 186; \$452	3,080	8,200	Belgium 2,050; \$4,820
Sodium permanganate	79	187	Belgium 30; \$66	1,040	2,480	Belgium 404; \$781
Sulfates, basket category, including manganese sulfate	1,600	1,440	Canada 1,380; \$1,040	16,900	14,200	Canada 14,000; \$8,230

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.