

Mineral Industry Surveys

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MANGANESE IN DECEMBER 2014

Preliminary data for December 2014 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 65,300 metric tons (t) (gross weight). This was a slight decrease compared with the revised amount consumed in November 2014 (65,500 t). Manganese ore consumption during the 2014 was 554,000 t, 9% more than the revised amount consumed in 2013 (506,000 t). Industry stocks of ore at the end of December 2014 were estimated to be 158,000 t, which was 6% more than the revised amount at the end of November 2014 (149,000 t).

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 2014.

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 ${\it TABLE~1}$ PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN DECEMBER 2014

					Average low,
		High	Low	Average	mid, and high
Manganese ferroalloys:					
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,060.00	1,040.00	1,050.00	XX
Medium-carbon ferromanganese, 85% mang	cents per pound of contained manganese	98.00	97.00	97.50	XX
Silicomanganese, 65% manganese	do.	58.00	57.00	57.50	XX
Manganese metal, 99.9% manganese flake ²	cents per pound	131.00	125.00	XX	125.00-127.75-130.50
Manganese ore: ^{3, 4}					
36%–39% manganese	ars per metric ton unit contained manganese	3.80	3.70	XX	3.70-3.75-3.80
44% manganese	do.	4.40	4.30	XX	4.30-4.35-4.40
46% manganese	do.	4.80	4.55	XX	4.55-4.68-4.80

do. Ditto. XX Not applicable.

 $\label{eq:table 2} \textbf{TABLE 2}$ SELECTED U.S. FOREIGN TRADE IN MANGANESE 1

(Metric tons, manganese content)²

	Impo	Imports for consumption			Exports	
	Ore and	Ferroalloy			Ferroalloy	
	dioxide	and metal	Total	Ore	and metal	Total
2013:						
December	22,400	30,600	53,000	18	270	287
January-December	275,000	519,000	794,000	314	7,120	7,430
2014:						
January	6,510	32,200	38,700	21	1,130	1,150
February	28,000	61,500	89,500	202	1,100	1,310
March	1,910	46,400	48,300	1	1,010	1,020
April	19,100	52,100	71,100	23	464	487
May	27,500	74,700	102,000	31	749	780
June	6,740	48,400	55,200	19	346	366
July	37,100	37,900	75,000	9	965	974
August	19,500	75,800	95,300	54	887	940
September	17,100	34,900	52,000		858	858
October	9,360	43,200	52,500	26	978	1,010
November	26,500	61,700	88,100	24	753	778
December	651	49,300	50,000	19	796	815
January-December	200,000	618,000	818,000	429	10,000	10,500

⁻⁻ Zero.

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

²CRU Ryan's Notes North American transaction prices, electrolytic manganese metal flake, 99.99% manganese, free-on-board producing point or Chicago warehouse; average prices reported for the price range.

³CRU Ryan'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 cor

¹Data are 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 3 U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN DECEMBER $2014^{\rm 1}$

				January-December		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value ²	weight	content	value ²
Australia	7,810	5,230	\$8,700,000	70,800	47,200	\$76,900,000
Bahrain				4,000	2,600	4,540,000
Brazil				7,890	5,210	8,120,000
China				400	302 ³	564,000
Georgia	11,300	8,180	12,200,000	144,000	101,000	151,000,000
Hong Kong				1	1 3	3,700
India	540	345	801,000	4,220	2,660	6,450,000
Indonesia	46	30	49,500	1,880	1,240	1,930,000
Korea, Republic of				20	13	20,500
Mexico	5,500	3,570	5,700,000	36,900	24,000	38,000,000
Norway	4,650	2,830	7,180,000	37,800	24,000	51,300,000
Russia				548	381	646,000
Saudi Arabia				6,030	3,920	6,170,000
South Africa	40	27	43,100	126,000	83,000	135,000,000
Spain	288	187	289,000	2,240	1,460	2,620,000
Zambia				1,150	746	1,210,000
Total	30,100	20,400	35,000,000	444,000	298,000	485,000,000

⁻⁻ Zero.

¹Data are 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.

³Reported Mn content is too high. The Mn content of silicomanganese imports from China and Hong Kong would be about 66%.

TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN DECEMBER $2014^{\rm 1}$

Source Low carbon:	Gross weight	Mn	Customs	Gross	3.4	
	woight			Gross	Mn	Customs
Low carbon:	weight	content	value ²	weight	content	value ²
LOW Carbon.						
Canada				89	32	\$92,300
China	61	51	\$148,000	7,070	6,550	16,000,000
France				19	15	48,300
Germany	9	9 ³	25,100	11	11 3	31,000
Korea, Republic of				6,470	5,770	13,400,000
Netherlands	18	15	49,100	18	15	49,100
Norway	1,610	1,300	2,510,000	20,100	16,300	30,900,000
South Africa	76	72	197,000	2,560	2,420	6,040,000
Total	1,770	1,450	2,930,000	36,400	31,100	66,500,000
Medium carbon, 1%–2% C:						
China				180	137	440,000
India				1	1 3	3,250
Korea, Republic of				19,000	15,400	26,800,000
Mexico	90	71	166,000	2,240	1,720	4,420,000
Norway	1,300	1,050	1,820,000	14,100	11,500	18,800,000
South Africa	9,530	7,510	12,300,000	25,700	20,500	35,000,000
Vietnam				486	379	622,000
Total	10,900	8,630	14,300,000	61,800	49,600	86,000,000
Medium carbon, 2%–4% C:						
Brazil				135	100	123,000
China				1	(4)	3,300
Slovenia				1	1 3	2,480
Total				137	101	129,000
High carbon:						
Australia	6,510	4,600	5,680,000	50,800	37,900	42,900,000
Brazil				1,640	1,190	1,360,000
Canada				179	116	253,000
France	5,000	3,800	4,340,000	5,660	4,300	4,950,000
Korea, Republic of				519	395	548,000
Macedonia				152	114	141,000
Norway	3	2	3,610	4	3	5,990
Saudi Arabia				503	377	483,000
South Africa	9,130	6,840	7,650,000	203,000	154,000	188,000,000
Spain	96	73	89,100	408	311	406,000
Ukraine		12	24,100	3,320	2,540	3,280,000
Total	20,800	15,300	17,800,000	266,000	201,000	242,000,000
Grand total	33,400	25,400	35,000,000	364,000	282,000	395,000,000

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ 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.

³Reported Mn content is too high. The Mn content of these ferromanganese imports would be about 79%, except for the "Medium—carbon, 2%—4%C "Ferromanganese imports from India, which would be about 74%

⁴Less than ½ unit.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN DECEMBER 2014 $^{\rm 1}$

				January-December		
Source	Gross weight	Mn content	Customs value ²	Gross weight	Mn content	Customs value ²
More than 20%, but less than 47% manganese:			varae			varae
China				11	5	\$6,120
Gabon				49,600	20,400	7,640,000
Mexico				9,420	3,440	2,010,000
Morocco				115	44	54,900
South Africa				40,000	16,100	5,650,000
Total				99,100	40,000	15,400,000
47% or more manganese:						
Australia				35,700	17,500	11,500,000
Belgium				2,890	1,440	173,000
Brazil	53	26	\$22,200	3,170	1,690	1,390,000
China				8	7 3	2,470
Gabon				251,000	129,000	58,200,000
Ivory Coast				18	16 ³	19,400
Japan				2	1	6,000
Morocco				1,730	910	250,000
Netherlands				7	5 3	15,500
South Africa	140	70	71,400	1,600	1,180	1,420,000
Total	193	96	93,600	296,000	152,000	72,900,000
Grand total	193	96	93,600	396,000	192,000	88,300,000

⁻⁻ 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.

³Reported as manganese dioxide content. The Mn content would be about 55% for year-to-date imports from China, Ivory Coast, and the Netherlands.

TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN DECEMBER 2014^1

(Metric tons, gross weight)

			January-December		
		Customs		Customs	
Source	Quantity	value ²	Quantity	value ²	
Belgium	19	\$86,600	252	\$250,000	
Bolivia			9	14,500	
Brazil			18	20,300	
Canada			5	8,000	
China			181	152,000	
Colombia			4	8,530	
Germany			28	55,500	
India			17	32,800	
Japan	610	1,400,000	5,930	13,700,000	
Netherlands			95	58,900	
Singapore	24	40,500	179	304,000	
South Africa	272	666,000	5,880	13,000,000	
Spain			311	145,000	
Taiwan			1	3,870	
Turkey			866	423,000	
United Kingdom			(3)	6,980	
Total	925	2,190,000	13,800	28,200,000	

⁻⁻ Zero.

 $^{^{1}\}textsc{Data}$ 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, U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

³Less than ½ unit.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN DECEMBER 2014 $^{\rm 1}$

			January-	December	
	Gross	Customs	Gross	Customs	
Source	weight	value ²	weight	value ²	
Unwrought flake:					
China	930	\$2,030,000	9,180	\$18,400,000	
Hong Kong			60	130,000	
Japan	84	286,000	520	1,770,000	
Mexico	24	75,600	270	880,000	
South Africa	1,050	2,730,000	9,670	25,100,000	
Total	2,090	5,120,000	19,700	46,300,000	
Unwrought powder:					
China	20	48,400	209	417,000	
Mexico	7	24,700	16	59,500	
South Africa	218	723,000	2,520	8,540,000	
Total	245	796,000	2,750	9,020,000	
Unwrought, other:					
Belgium			3	7,520	
China	1,020	2,230,000	11,700	27,000,000	
Germany	34	91,100	160	349,000	
Mexico			16	53,900	
Netherlands			57	137,000	
Poland			(3)	4,320	
South Africa	38	101,000	442	1,260,000	
Spain			10	21,600	
Total	1,090	2,420,000	12,400	28,900,000	
Other manganese, wrought:					
China	(3)	23,200	(3)	28,900	
Germany	25	321,000	89	1,190,000	
India			7	22,700	
Japan			(3)	15,200	
Korea, Republic of			2,020	4,960,000	
Malaysia			(3)	12,400	
Mexico	12	40,900	50	186,000	
Netherlands			(3)	2,000	
Poland			(3)	2,080	
Taiwan			(3)	3,620	
Total	37	385,000	2,160	6,430,000	
Metallic waste and scrap:		· · · · · · · · · · · · · · · · · · ·	•		
Canada	155	56,800	1,430	811,000	
Germany			(3)	2,580	
Total	155	56,800	1,430	814,000	
Grand total	3,620	8,770,000	38,400	91,500,000	

⁻⁻ Zero

 $^{^{1}\}mbox{Data}$ 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.

TABLE~8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN DECEMBER 2014 1,2

		2	January-	-December
		F.a.s. ³		F.a.s. ³
	Gross weight	value	Gross weight	value
Source	(metric tons)	(thousands)	(metric tons)	(thousands)
Ore and concentrates with 20% or more manganese:				
Canada	19	\$16	436	\$873
China			19	17
Hungary			16	13
Mexico			12	32
Netherlands	16	62	282	1,200
Panama			17	14
Poland			35	42
United Kingdom			20	17
Other (4 countries)	3	10	21	52
Total	38	88	858	2,250
Ferromanganese:				
2% or less carbon:				
Canada			4,350	6,430
Chile	2	4	20	38
Finland			20	36
Japan			119	211
Mexico			93	200
Spain			80	158
Turkey			40	84
Other (6 countries)			51	102
Total	2	4	4,770	7,260
More than 2% carbon:				
Angola	7	12	16	35
Brazil			10	27
Canada	72	71	492	622
Chile			48	134
Equatorial Guinea	-5	3	43	116
Ghana	1	3	10	34
Singapore	3	9	62	174
Other (10 countries)	10	27	95	215
Total	92	126	775	1,360
Silicomanganese:				
Canada	126	158	2,030	2,510
France	<u> </u>		391	555
India	668	472	828	599
Mexico			76	153
Total	794	630	3,320	3,820
Metal, including alloys and waste and scrap: ⁴				
Canada			67	185
China			76	1,060
Germany			101	417
Japan	20	65	84	291
Malaysia	157	209	2,270	1,340
Mexico	19	73	285	1,000
Netherlands			43	170
Norway			37	1,670
Vietnam			322	394
Other (15 countries)	2	7	184	761
Total	197	354	3,470	7,290
Grand total	1,120	1,200	13,200	22,000

⁻⁻ Zero.

¹Presentation of monthly data is based on the "January–December" quantities 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.

⁵Less than ½ unit.

9

TABLE 9 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN DECEMBER 2014, BY CLASS¹

					January	–December
			Principal sources			Principal sources
			and destinations:			and destinations:
	Gross weight	Value ²	gross weight (metric tons);	Gross weight	Value ²	gross weight (metric tons);
Class	(metric tons)	(thousands)	value ² (thousands)	(metric tons)	(thousands)	value ² (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	702	\$597	Korea, Republic of 344; \$237	8,330	\$6,960	Korea, Republic of 5,030; \$3,450
Manganites, manganates, and						
other permanganates				14	36	Korea, Republic of 14; \$27
Potassium permanganate	108	274	India 90; \$247	1,610	4,530	India 1,590; \$4,490
Sodium permanganate	356	780	China 356; \$780	2,420	5,580	China 2,370; \$5,430
Sulfates, basket category,						
including manganese sulfate	4,330	3,670	Mexico 1,660; \$1,410	61,500	51,100	Mexico 18,400; \$16,200
Exports:						
Manganese dioxide	410	803	Canada 266; \$200	3,800	7,870	Canada 1,720; \$1,600
Manganese oxides other than dioxide	778	1,720	Germany 196; \$570	10,800	17,400	Netherlands 1,610; \$1,530
Manganites, manganates, and						
other permanganates	19	45	Canada 18; \$39	155	462	Canada 111; \$263
Potassium permanganate	295	802	Belgium 224; \$527	3,960	10,700	Belgium 2,280; \$5,670
Sodium permanganate	20	87	Mexico 19; \$83	916	2,690	Belgium 451; \$1,040
Sulfates, basket category,						
including manganese sulfate	1,970	2,440	Canada 1,490; \$913	21,300	22,500	Canada 16,400; \$8,730

⁻⁻ Zero.

¹Data are rounded to no more than three significant digits.
²For imports, customs value; for exports, free alongside ship value.