

# Mineral Industry Surveys

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# **MANGANESE IN MAY 2005**

On a gross-weight basis, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 34,000 metric tons (t) in May 2005, which was a 1% increase from that of April 2005, according to the U.S. Geological Survey. This figure increases to 36,400 t when estimates for annual respondents are added on the basis of 2004 data. Corresponding industry stocks of ore at the end of the month were 154,000 t, which includes an estimate for annual respondents on the basis of 2004 data. (Data for the most recent 13 months are plotted in the graph on page 2.)

Foreign trade data for May will appear in a subsequent report. The following comparisons of trade data were made on the basis of manganese content. The data for April 2005 tabulated in this report indicate that the total exports of 3,130 t were more than double those of the prior month, owing to an increase in manganese ore exports. Manganese imports were 78,300 t, which was an increase of 22% compared with those of March. The increase in manganese imports was based on increases in ferromanganese and manganese metal and ore imports.

# Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup>	Medium-carbon ferromanganese <sup>1</sup>	Silicomanganese <sup>1</sup>	Manganese metal <sup>2</sup>
	(dollars per gross ton)	(cents per pound)	(cents per pound)	(cents per pound)
May 5	610.00-650.00	67.00-68.00	32.00-34.00	94.00-98.00
May 12	580.00-600.00	65.00-66.00	32.00-34.00	94.00-98.00
<b>May 19</b>	560.00-590.00	65.00-66.00	32.00-34.00	94.00-98.00
<b>May 26</b>	560.00-590.00	60.00-63.00	31.75-33.00	94.00-98.00

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

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
May 5	3.00-3.20	3.80-4.00
May 12	2.90-3.10	3.60-4.00
May 19	2.90-3.10	3.60-3.90
May 26	2.90-3.10	3.60-3.90

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

<sup>&</sup>lt;sup>2</sup>Source: Ryan's Notes, North American transaction price.

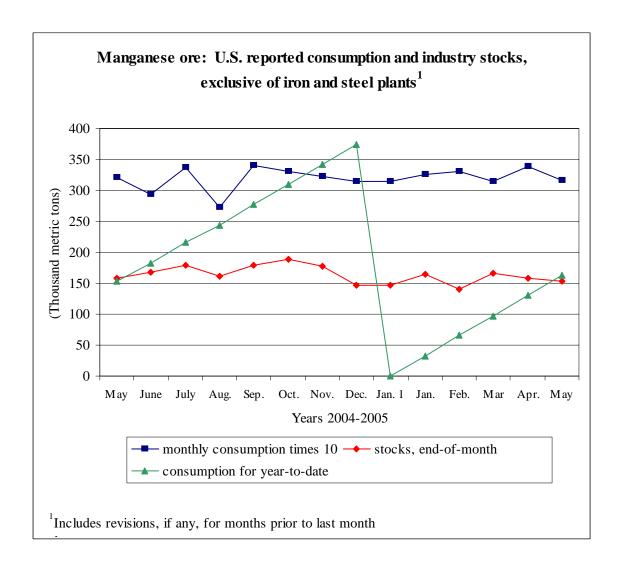
<sup>&</sup>lt;sup>3</sup>To determine dollars per metric ton multiply the manganese content percentage by the price.

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

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

	Impor	ts for consumpt	ion	Exports		
	Ore and	Ferroalloy				
	dioxide	and metal	Total	Ore	and metal	Total
2004:						
April	3,720	57,300	61,000	733	1,300	2,030
January-April	72,200	157,000	229,000	15,800	3,400	19,100
2005:						
January	7,650	45,000	52,600	162	955	1,120
February	40,700	29,000	69,700	111	1,170	1,280
March	22,300	42,000	64,300	206	1,160	1,360
April	38,400	39,900	78,300	2,350	778	3,130
Total	109,000	156,000	265,000	2,830	4,060	6,890

<sup>&</sup>lt;sup>1</sup>Data are 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.

 ${\it TABLE~2}$  U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN APRIL  $2005^1$ 

					Year to date		
	Gross	Mn	Customs	Gross	Mn	Customs	
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>	
Australia	3,510	2,310	\$1,760,000	12,200	8,140	\$8,450,000	
Kazakhstan				20	13	17,500	
Korea, Republic of				216	156	305,000	
Mexico	1,200	782	999,000	4,900	3,290	4,010,000	
Norway	6,000	3,800	6,080,000	21,300	13,500	21,300,000	
Romania	14,900	10,500	11,300,000	23,200	16,300	18,200,000	
Russia				11,400	7,750	9,250,000	
South Africa	6,410	4,220	4,050,000	37,400	24,800	26,100,000	
Total	32,100	21,600	24,200,000	111,000	73,900	87,600,000	
Total, general imports	32,100	21,600	24,200,000	111,000	73,900	87,600,000	

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<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.

 ${\bf TABLE~3}$  U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN APRIL  $2005^1$ 

					Year to date	
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Low carbon:						
China	1,560	1,340	\$2,530,000	7,140	6,090	\$12,000,000
Mexico	400	316	453,000	1,260	1,010	1,480,000
Netherlands				17	14	29,800
Norway				221	181	369,000
South Africa	299	278	563,000	878	814	1,670,000
Spain				36	28	41,800
Total, low carbon	2,260	1,940	3,540,000	9,550	8,130	15,600,000
Total, general imports	-					
of low carbon	2,260	1,940	3,540,000	9,550	8,130	15,600,000
Medium carbon, 1%-2% C:						
China				1,850	1,450	2,600,000
Mexico	1,610	1,280	1,830,000	5,890	4,570	6,560,000
Norway				1,810	1,480	2,610,000
South Africa	5,190	4,190	5,430,000	12,500	10,100	15,500,000
Total, m.c., 1%-2% C	6,790	5,470	7,260,000	22,000	17,600	27,300,000
Total, general imports						
of m.c., 1%-2% C	6,790	5,470	7,260,000	22,000	17,600	27,300,000
High carbon:						
Australia				1,000	774	897,000
Brazil				6,210	5,020	5,630,000
Canada				18	13	17,000
China				5,500	4,200	3,850,000
France				2,600	2,030	2,000,000
Hong Kong				300	228	213,000
Mexico				763	596	705,000
South Africa	9,700	7,540	5,340,000	41,000	31,900	29,800,000
Total, high carbon	9,700	7,540	5,340,000	57,400	44,700	43,100,000
Total, general imports						
of high carbon	9,700	7,540	5,340,000	57,400	44,700	43,100,000
Grand total	18,800	14,900	16,100,000	89,000	70,500	85,900,000
Grand total, general imports	18,800	14,900	16,100,000	89,000	70,500	85,900,000

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<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.

 ${\rm TABLE~4}$  U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN APRIL 2005  $^{1.2}$ 

				Year to date		
C	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>3</sup>	weight	content	value <sup>3</sup>
More than 20%, but less than 47% manganese:						
China				30	12	\$11,600
Mexico	2,960	1,090	\$355,000	5,870	3,240	675,000
Namibia				26,000	10,400	1,950,000
Total	2,960	1,090	355,000	31,900	13,700	2,640,000
47% or more manganese:						
Australia				22,500	11,800	2,810,000
Belgium	19	10	11,300	38	23	26,800
Brazil	1,700	1,470	740,000	8,630	4,940	1,160,000
China	312	156	18,700	8,540	4,270	714,000
France				60	56 <sup>4</sup>	6,670
Gabon	41,000	21,500	4,240,000	108,000	55,000	8,260,000
Ghana				72	50	4,320
India				6	3	4,230
South Africa	27,300	13,300	2,530,000	27,300	13,300	2,530,000
Total	70,300	36,500	7,550,000	175,000	89,500	15,500,000
Grand total	73,300	37,600	7,900,000	207,000	103,000	18,100,000

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 ${\it TABLE~5}$  U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN APRIL  $2005^1$ 

#### (Metric tons, gross weight)

		Manganese dioxide								
		Year to date								
		Customs		Customs						
Source	Quantity	value <sup>2</sup>	Quantity	value <sup>2</sup>						
Australia			4,910	\$6,440,000						
Belgium	111	\$245,000	148	315,000						
Brazil	95	88,800	222	256,000						
China	405	413,000	3,140	3,200,000						
Germany		13,200	34	94,800						
Japan		1,060,000	1,460	1,960,000						
Total	1,410	1,820,000	9,920	12,300,000						
Total, general imports	1,410	1,820,000	9,920	12,300,000						

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>Data are 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.

 $<sup>^4</sup>$ All or part of these data have been referred to the U.S. Census Bureau for verification. Reported content is likely that of MnO<sub>2</sub> rather than Mn.

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

<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.

 ${\it TABLE~6}$  U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN APRIL  $2005^1$ 

·	·		Year	to date
	Gross	Customs	Gross	Customs
Source	weight	value <sup>2</sup>	weight	value <sup>2</sup>
Unwrought flake:				
China	1,490	\$2,270,000	4,410	\$7,010,000
Germany			7	28,200
South Africa	762	1,350,000	2,190	3,680,000
Total	2,250	3,610,000	6,600	10,700,000
Unwrought powder:				
China	20	41,400	36	70,100
South Africa	370	775,000	1,400	2,660,000
Total	390	816,000	1,430	2,730,000
Unwrought, other:				
China			100	204,000
Germany	294	594,000	1,010	1,980,000
Spain	206	412,000	1,200	2,590,000
South Africa	100	199,000	677	1,270,000
Total	600	1,210,000	2,990	6,050,000
Other manganese, wrought:				
Austria			1	53,300
China	84	141,000	163	276,000
France	4	41,800	17	173,000
Germany			4	42,300
Spain			37	77,600
United Kingdom			2	7,070
Total	84	183,000	224	630,000
Grand total	3,330	5,820,000	11,200	20,100,000

<sup>--</sup> Zero

Note: Imports for consumption of metallic manganese waste and scrap totaled 45 tons, all of which was from Canada, to give a year-to-date total of 294 tons.

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

<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.

TABLE 7  $\hbox{U.S. EXPORTS OF MANGANESE ORE (20\% OR MORE Mn), FERROMANGANESE, } \\ \hbox{SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN APRIL 2005}^1 \\$ 

# (Metric tons, gross weight)

			Ferrom	anganese,				
	Manganese ore			2% or less C		anganese	Mangane	se metal <sup>2</sup>
	April	Year to date	April	Year to date	April	Year to date	April	Year to date
Australia								3
Belgium							34	114
Brazil					5	5		18
Canada	400	1,060	631	2,950	8	34	18	187
Chile				1				
China	4,100	4,310						
Colombia		6						
Denmark		17						
France						60		
Germany	17	36					54	136
Hong Kong							(3)	1
Indonesia	16	16			11	11		(3)
Italy							2	2
Japan							9	147
Korea, Republic of								3
Mexico		11	20	312	3	232	39	134
Netherlands				2		20		
New Zealand	1	1						
Poland	173	173						
Sweden		38						31
Taiwan								(3)
Total	4,710	5,670	651	3,270	27	362	156	776

<sup>--</sup> Zero.

Note: Exports of ferromanganese with more than 2% carbon totaled 113 tons, all of which went to Canada, to give a year-to-date total of 585 tons.

<sup>&</sup>lt;sup>1</sup>Data are 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>3</sup>Less than 1/2 unit.

 ${\bf TABLE~8}$  U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN APRIL 2005, BY CLASS  $^1$ 

				Year to date			
			Principal sources			Principal sources	
			and destinations:			and destinations:	
	Gross weight	Value <sup>2</sup>	gross weight (metric tons);	Gross weight	Value <sup>2</sup>	gross weight (metric tons);	
Class	(metric tons)	(thousands)	value <sup>2</sup> (thousands)	(metric tons)	(thousands)	value <sup>2</sup> (thousands)	
Imports for consumption:							
Manganese oxides other than dioxide	244	\$281	Mexico 112; \$45	2,130	\$1,050	Mexico 845; \$330	
Manganites, manganates, and							
other permanganates	38	123	Germany 38; \$123	38	123	Germany 38; \$123	
Potassium permanganate	75	150	Czech Republic 42; \$84	337	689	Czech Republic 203; \$407	
Sodium permanganate <sup>3</sup>	16	56	Germany 16; \$56	16	56	Germany 16; \$56	
Sulfates, basket category,							
including manganese sulfate	1,130	1,170	Mexico 596; \$415	15,400	9,140	Mexico 8,160; \$4,220	
Exports:							
Manganese dioxide	537	454	Canada 391; \$189	1,650	1,310	Canada 1,110; \$521	
Manganese oxides other than dioxide	496	605	Canada 208; \$99	3,150	2,350	Canada 2,020; \$800	
Manganites, manganates, and							
other permanganates	1	16	Canada 1; \$16	25	74	Japan 15; \$37	
Potassium permanganate	276	497	Spain 72; \$120	1,450	2,160	Spain 624; \$1,000	
Sodium permanganate <sup>3</sup>	10	26	Japan 10; \$26	93	303	Japan 79; \$247	
Sulfates, basket category,							
including manganese sulfate	1,580	1,320	Canada 1,270; \$601	7,620	5,260	Canada 6,280; \$2,780	

<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.

<sup>&</sup>lt;sup>3</sup>In December 2004, the U.S. Harmonized Tariff Schedule was changed for manganites, manganates, and permanganates to implement the United States-Australia Free Trade Agreement. Starting in 2005, sodium permanganate is tracked separately from the "manganites, manganates, and other permanganates" trade category.