USGS
science for a changing world

Mineral Industry Surveys

For information, contact:
Thomas S. Jones, Manganese Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4973, Fax: (703) 648-7757
E-mail: tjones@usgs.gov

Jesse J. Inestroza (Data)
Telephone: (703) 648-7968
Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999
Internet: http://minerals.usgs.gov/minerals

MANGANESE IN SEPTEMBER 2000

In September, reported consumption of manganese ore containing 35% or more manganese, exclusive of that at iron and steel plants, was estimated as 37,200 metric tons (t), which was a slight increase compared with the revised figure of 36,700 t for the previous month, according to the U.S. Geological Survey. This brought the year-to-date total to 342,000 t. The figures for September increase to 39,600 t and 372,000 t when estimates for annual respondents are added on the basis of 1999 data. Corresponding industry stocks of ore at the end of the month were 224,000 t, which includes an estimate for annual respondents on the basis of 1999 data. This was a decrease of about 12% compared with the revised corresponding figure of about 253,000 t for stocks at the end of August.

This report contains data on domestic consumption and stocks of manganese ferroalloys and metal for 1998 and 1999 (tables 8 and 9, respectively). As noted in the manganese annual review for 1999, the data in these tables are not directly comparable to those for prior years, especially for ferromanganese, and are more representative of relative rather than absolute quantities.

Foreign trade data for September will appear in a subsequent report. The data for August tabulated in this report indicate that the total number of manganese units imported as metal were the least since December 1999. **Note:** For early availability, the trade data appearing in this report are being placed on MINES FaxBack in preliminary form. The data for August were placed on FaxBack as of October 25. The FaxBack document number for the September trade data will be 420209.

The Defense National Stockpile Center (DNSC) of the Defense Logistics Agency, U.S. Department of Defense, reported for September a cash disposal from the National Defense Stockpile of 635 t of natural battery-grade ore, all of which went to Prince Manufacturing Co., Quincy, IL. **Later action:** As of October 1, 2000, the DNSC issued amendment no. 1 to Solicitation of Offers DLA-ELECTROLYTIC MANGANESE METAL-001 so as to make available for sale 1,814 t of electrolytic manganese metal. This was a change from the original quantity of 1,053 t given when this Solicitation for Offers was issued on May 1, 1997. The material now being offered equals that in the Annual Materials Plan for fiscal year 2001 that began October 1, 2000. This material is mostly at Curtis Bay, MD, and Gadsden, AL, and the remainder is at Sharonville, OH. The contact at DNSC for this solicitation is Rick Talbott, telephone no. (703) 767-5497.

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
1999: 3/						
August	24,900	43,700	68,600	75	953	1,030
January-August	184,000	314,000	498,000	848	10,500	11,400
2000:						
January	17,200 4/	27,600 4/	44,800	144	926	1,070
February	25,900 4/	38,100	64,000	202	1,380	1,580
March	17,700 4/	56,300 4/	74,000	383 4/	1,000	1,390
April	19,500 4/	38,600 4/	58,100	1,140 4/	937	2,080
May	4,130 4/	42,700	46,800	310 4/	541	851
June	21,500 4/	68,700 4/	90,300	398	484	883
July	60,600 4/	52,400	113,000	228	822	1,050
August	21,200 4/	44,700	65,800	438	652	1,090
Total	188,000	369,000	557,000	3,250	6,740	9,990

1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.
3/ Data may include revisions by the U.S. Census Bureau.
4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN AUGUST 2000 1/

(Metric tons, unless otherwise specified)

				Year to date		
Source	Gross weight	Mn content	Customs value	Gross weight	Mn content	Customs value
Argentina	20	9	$17,600	20	9	$17,600
Australia	8,470	6,270	3,950,000	37,500	33,700	18,400,000
Brazil	--	--	--	15	12	20,400
Bulgaria	--	--	--	2,450	1,590	1,030,000
Canada	77	51	18,600	77	51	18,600
France	--	--	--	1,350	918	636,000
Georgia	--	--	--	2,990	2,170	1,520,000
India	12,200	8,030	5,330,000	46,700	30,300	20,100,000
Kazakhstan	7,220	4,860	2,870,000	46,200	31,400	20,900,000
Korea, Republic of	--	--	--	2,800	1,850	1,240,000
Mexico	4,150	2,730	1,980,000	33,200	20,400	15,500,000
Norway	--	--	--	1,400	848	953,000
Romania	--	--	--	4,040	2,640	1,830,000
South Africa	650	431	305,000	65,400	42,700	30,500,000
Venezuela	3,900	2,650	1,720,000	20,100	13,500	9,070,000
Total	36,600	25,000	16,200,000	264,000	182,000	122,000,000
Total, general imports	36,600	25,000	16,200,000	264,000	182,000	122,000,000

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

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST 2000 1/

(Metric tons)

Source	Gross weight	Mn content	Customs value	Year to date p/ 2/ Gross weight	Mn content	Customs value
Low carbon:						
Brazil	999	807	$648,000	999	807	$648,000
China	108	97	104,000	1,070	969	1,140,000
Italy	410	354	411,000	4,950	4,220	4,930,000
Japan	73	69	89,800	4,400	3,690	3,610,000
Mexico	200	160	167,000	730	588	636,000
Norway	--	--	--	30	24	22,800
South Africa	260	246	402,000	1,170	1,100	1,870,000
Ukraine	--	--	--	240	228	275,000
Total, low carbon	2,050	1,730	1,820,000	13,600	11,600	13,100,000
Total, general imports of low carbon	2,050	1,730	1,820,000	13,600	11,600	13,100,000
Medium carbon, 1%-2% C:						
Brazil	--	--	--	108	85	76,800
China	--	--	--	2,050	1,640	1,190,000
France	60	48	37,400	60	48	37,400
Germany	--	--	--	80	65	52,800
Japan	--	--	--	2,500	2,130	1,450,000
Korea, Republic of	--	--	--	5,700	4,560	3,260,000
Mexico	1,910	1,560	1,360,000	14,600	11,800	9,560,000
Norway	540	437	241,000	8,190	6,650	5,090,000
South Africa	2,670	2,170	1,800,000	20,600	16,700	12,600,000
Total, m.c., 1%-2% C	5,180	4,210	3,430,000	53,900	43,600	33,300,000
Total, general imports of m.c., 1%-2% C	5,180	4,210	3,430,000	53,900	43,600	33,300,000
Medium carbon, 2%-4% C:						
Brazil	1	(3/)	2,490	1	(3/)	2,490
South Africa	--	--	--	30	24	16,800
Total, m.c., 2%-4% C	1	(3/)	2,490	31	24	19,300
Total, general imports of m.c., 2%-4% C	1	(3/)	2,490	31	24	19,300
High carbon:						
Australia	5,980	4,120	2,270,000	24,800	18,500	9,330,000
Brazil	3,510	2,710	1,320,000	8,310	6,410	3,370,000
Canada	--	--	--	36	28	26,200
France	--	--	--	39,400	31,200	17,200,000
South Africa	7,380	5,750	2,920,000	83,000	64,300	31,200,000
Total, high carbon	16,900	12,600	6,500,000	156,000	120,000	61,100,000
Total, general imports of high carbon	16,900	12,600	6,500,000	156,000	120,000	61,100,000
Grand total	24,100	18,500	11,800,000	223,000	176,000	108,000,000
Grand total, general imports	24,100	18,500	11,800,000	223,000	176,000	108,000,000

p/ Preliminary. -- Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ May include revisions to previous months' data.
3/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS OF MANGANESE ORE (20% OR MORE Mn) IN AUGUST 2000 1/ 2/

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Gabon	--	--	31,300 3/	18,700 3/	31,300	18,700
Mexico	155	69	--	--	155	69
Total	155	69	31,300	18,700	31,500	18,800
Year to date:						
Australia	--	--	23,700	12,300	23,700	12,300
Belgium	18	6	--	--	18	6
Brazil	7,030	3,250	--	--	7,030	3,250
Gabon	36,500	15,500	252,000	132,000	288,000	148,000
India	88	559	--	--	88	559
Mexico	5,140	2,970	--	--	5,140	2,970
Morocco	--	--	20	11	20	11
Total	48,800	22,200	275,000	144,000	324,000	167,000

-- Zero.
1/ Quantities for general imports and imports for consumption are identical.
2/ Data are rounded to no more than three significant digits; may not add to totals shown.
3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN AUGUST 2000 1/

(Metric tons, gross weight, unless otherwise specified)

Source	Manganese dioxide				Manganese metal			
			Year to date		Unwrought		Other	
	Quantity	Customs value	Quantity	Customs value	Quantity	Year to date	Quantity	Year to date
Australia	1,910	$2,710,000	18,200	$26,300,000	--	--	--	--
Belgium	97	133,000	573	955,000	--	--	--	--
Brazil	20	13,300	29	31,500	--	--	--	--
Canada	--	--	--	--	--	--	--	12
China	102	96,600	274	278,000	340	2,930	--	92
France	--	--	--	--	--	--	7	80
Germany	--	--	84	437,000	217	940	6	29
Ghana	--	--	3	4,530	--	--	--	--
Greece	195	253,000	1,140	1,480,000	--	--	--	--
India	--	--	--	--	--	--	--	21
Ireland	832	1,150,000	6,540	8,900,000	--	--	--	--
Japan	(2/)	3,850	(2/)	3,850	--	--	--	5
Mexico	--	--	--	--	--	--	20	20
Netherlands	40	53,800	40	53,800	--	106	14	72
Peru	--	--	--	--	--	--	--	4
South Africa	796	1,130,000	8,210	11,600,000	463	6,340	--	--
Switzerland	--	--	79	80,200	--	--	--	--
Taiwan	--	--	--	--	--	--	--	18
Ukraine	--	--	--	--	--	20	--	--
United Kingdom	--	--	117	174,000	26	474	--	3
Venezuela	--	--	--	--	--	--	--	36
Total	3,990	5,540,000	35,300	50,200,000	1,050	10,800	47	391
Total, general imports	3,990	5,540,000	35,400	50,300,000	1,230	11,200	47	391

-- Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Less than 1/2 unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 57 tons, all of which was from Canada, to give a year-to-date total of 199 tons.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2000 1/

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal 2/	
	August	Year to date	August	Year to date	August	Year to date	August	Year to date
Australia	--	172	--	--	--	--	--	--
Austria	--	--	--	--	--	--	--	39
Belgium	--	--	--	--	--	--	--	38
Brazil	--	67	--	--	4	4	--	--
Canada	460	3,120	348	3,750	--	996	72	511
Chile	--	--	--	--	--	--	--	4
Colombia	--	--	--	--	--	--	--	8
Czech Republic	16	16	--	--	--	--	--	--
Egypt	5	5	--	--	--	--	--	--
Finland	--	--	--	--	--	--	18	67
France	--	82	--	--	--	4	5	5
Germany	301	1,330	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	(3/)	3
Italy	--	300	--	--	--	--	9	28
Japan	--	70	--	--	--	--	10	517
Korea, Republic of	--	--	--	--	--	--	3	9
Mexico	9	1,080	26	123	14	332	23	158
Netherlands	24	24	--	--	--	9	--	55
Norway	--	139	--	--	--	--	--	--
Panama	--	--	--	18	--	--	--	--
Peru	--	--	--	--	--	--	--	1
Singapore	24	24	--	--	--	--	--	--
Switzerland	20	33	--	--	--	--	--	--
Taiwan	--	11	--	--	--	--	--	30
United Kingdom	--	--	--	--	--	--	--	17
Venezuela	17	17	--	--	--	--	--	--
Total	876	6,490	374	3,890	18	1,350	140	1,490

-- Zero.

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

2/ Includes manganese-aluminum, some other alloys, and waste and scrap.

3/ Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 259 tons, all of which went to Canada, to give a year-to-date total of 1,640 tons.

Source: U.S. Census Bureau.

TABLE 7
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN AUGUST 2000, BY CLASS 1/

Class	Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value 2/ (thousands)	Year to date: Gross weight (metric tons)	Year to date: Value 2/ (thousands)	Year to date: Principal sources and destinations: gross weight (metric tons); value 2/ (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	106	$198	Japan 37; $127	964	$1,400	Mexico 390; $125
Sulfates, basket category, including manganese sulfate	4,020	1,850	China 2,570; $668	26,600	14,600	Mexico 11,600; $5,750
Potassium permanganate	190	367	Czech Republic 100; $196	1,080	2,090	Czech Republic 515; $989
Manganites, manganates, and other permanganates	--	--	--	37	260	Germany 36; $257
Exports:						
Manganese dioxide	296	593	Germany 110; $273	2,320	2,840	Canada 1,260; $555
Manganese oxides other than dioxide	960	664	Canada 543; $224	6,170	7,310	Canada 2,460; $975
Sulfates, basket category, including manganese sulfate	1,230	542	Canada 996; $289	13,800	7,120	Canada 11,400; $3,420
Potassium permanganate	187	433	United Kingdom 53; $139	1,020	2,120	United Kingdom 216; $465
Manganites, manganates, and other permanganates	5	46	Taiwan 5; $37	186	951	Nicaragua 57; $100

-- Zero.
1/ Data are rounded to no more than three significant digits.
2/ For imports, Customs value; for exports, f.a.s. value.

Source: U.S. Census Bureau.

TABLE 8
U.S. CONSUMPTION, BY END USE, AND INDUSTRY STOCKS OF MANGANESE FERROALLOYS AND METAL IN 1998 1/

(Metric tons, gross weight)

End use	Ferromanganese			Silico-manganese	Manganese metal
	High carbon	Medium and low carbon	Total		
Steel:					
Carbon	127,000	100,000	228,000	85,500	644
High-strength, low-alloy	21,200	3,540	24,800	5,770	(2/)
Stainless and heat-resisting	12,400	(2/)	12,400	5,430	1,360
Full alloy	18,200	6,160	24,300	28,700	(2/)
Unspecified 3/	304	181	485	262	294
Total	179,000	110,000	290,000	126,000	2,300
Cast irons	10,100	506	10,700	783	5
Superalloys	W	W	W	--	131
Alloys (excluding alloy steels and superalloys)	1,350	391	1,740	(4/)	19,100 5/
Miscellaneous and unspecified	--	W	W	(4/)	W
Total consumption	191,000	111,000	302,000	126,000 6/	21,500
Total manganese content 7/	149,000	88,900	238,000	83,400	21,500
Stocks, December 31, consumers and producers	12,800	13,200	25,900	8,660	5,280

W Withheld to avoid disclosing company proprietary data; included with "Alloys (excluding alloy steels and superalloys)." --Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Withheld to avoid disclosing company proprietary data; included with "Steel: Unspecified."
3/ Includes electrical and tool steel, and items indicated by footnote 2.
4/ Withheld to avoid disclosing company proprietary data.
5/ Approximately 85% of this combined total was for consumption in aluminum alloys.
6/ Internal evaluation indicates that silicomanganese consumption is considerably understated.
7/ Estimated based on typical percent manganese content.

TABLE 9
U.S. CONSUMPTION, BY END USE, AND INDUSTRY STOCKS OF MANGANESE FERROALLOYS AND METAL IN 1999 1/

(Metric tons, gross weight)

End use	Ferromanganese			Silico-manganese	Manganese metal
	High carbon	Medium and low carbon	Total		
Steel:					
Carbon	127,000	94,100	221,000	78,300	1,110
High-strength, low-alloy	20,100	2,980	23,100	5,190	(2/)
Stainless and heat-resisting	13,900	(2/)	13,900	6,590	1,650
Full alloy	16,000	5,780	21,800	26,400	(2/)
Unspecified 3/	279	299	578	262	181
Total	178,000	103,000	281,000	117,000	2,950
Cast irons	10,100	523	10,700	1,090	5
Superalloys	W	W	W	--	W
Alloys (excluding alloy steels and superalloys)	1,350	465	1,810	(4/)	19,200 5/
Miscellaneous and unspecified	--	W	W	(4/)	W
Total consumption	189,000	104,000	293,000	118,000 6/	22,200
Total manganese content 7/	148,000	83,500	231,000	77,900	22,200
Stocks, December 31, consumers and producers	17,600	22,000	39,600	9,180	4,970

W Withheld to avoid disclosing company proprietary data; included with "Alloys (excluding alloy steels and superalloys)." --Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Withheld to avoid disclosing company proprietary data; included with "Steel: Unspecified."
3/ Includes electrical and tool steel, and items indicated by footnote 2.
4/ Withheld to avoid disclosing company proprietary data.
5/ Approximately 85% of this combined total was for consumption in aluminum alloys.
6/ Internal evaluation indicates that silicomanganese consumption is considerably understated.
7/ Estimated based on typical percent manganese content.