

# Mineral Industry Surveys

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## MANGANESE IN NOVEMBER 2023

On a gross-weight basis, U.S. imports of manganese ore in November 2023 increased by 41% to 57,200 metric tons (t) from 40,500 t in October 2023 (fig. 1, table 5). In November 2023, the leading source of manganese ore imports for >20% – <47% grade was Mexico and for >47% grade was Gabon. Total imports of manganese ore for the first eleven months of 2023 were 56% less than that during the same period in 2022.

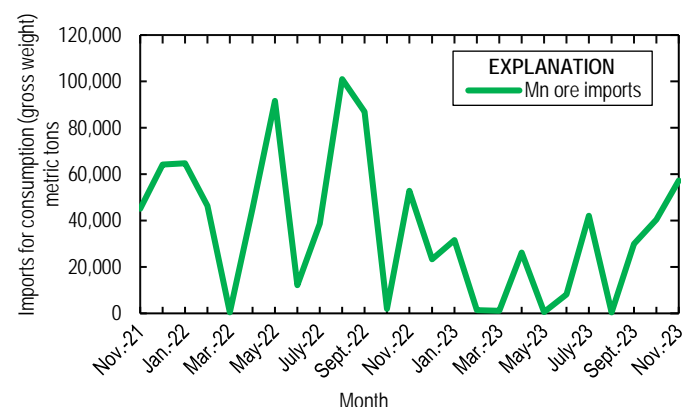


Figure 1. Monthly imports of manganese (Mn) ore from November 2021 through November 2023. Source: U.S. Census Bureau.

## Prices

In November 2023, the average spot prices of manganese ore deliveries to China were \$3.70 per metric ton unit for 36%–38% grade and \$4.25 per metric ton unit for 44% grade, 3% more and 3% less, respectively, than the October 2023 average prices (fig.

2, table 1). Compared with the monthly average prices in November 2022, the 36%–38% grade was 8% less and 44% grade price was slightly less.

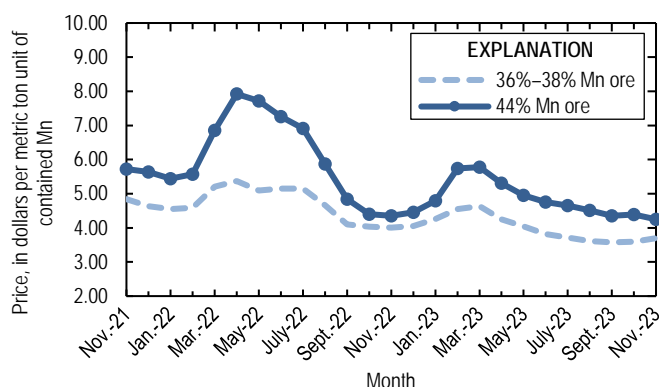


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from November 2021 through November 2023. Source: CRU Group.

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TABLE 1  
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN NOVEMBER 2023

		Low	Average	High
<u>Manganese ferroalloys:<sup>1</sup></u>				
High-carbon ferromanganese, 76% manganese	dollars per long ton of contained manganese	1,150.00	1,175.00	1,200.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	110.00	111.00	112.00
Silicomanganese, 65% manganese	do.	55.70	56.25	56.80
Manganese metal, 99.7% manganese flake <sup>2</sup>	cents per pound	116.00	126.00	136.00
<u>Manganese ore:<sup>3,4</sup></u>				
36%–38% manganese	dollars per metric ton unit contained manganese	3.67	3.70	3.72
44% manganese	do.	4.20	4.25	4.30

do. Ditto.

<sup>1</sup>S&P Global Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

<sup>2</sup>CRU Group United States transaction prices, electrolytic manganese metal flake, 99.7% manganese, ex-works. Average prices are the average of the month high and low range.

<sup>3</sup>CRU Group, cost, insurance, and freight, China. Average prices are the average of the month high and low range.

<sup>4</sup>To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 44 when the manganese content is 44%.

TABLE 2  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons)

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2022:						
November	53,100	36,900 <sup>r</sup>	90,000 <sup>r</sup>	178	1,320	1,500
January–November	546,000	667,000 <sup>r</sup>	1,210,000 <sup>r</sup>	685	8,980 <sup>r</sup>	9,670 <sup>r</sup>
2023:						
January	31,700	85,100	117,000	28	551	579
February	1,500	23,800	25,300	--	824	824
March	1,120	64,500	65,700	109	1,240	1,350
April	26,300	45,400	71,700	300	424	724
May	878	37,500	38,400	83	807	891
June	8,230	44,700	53,000	24	558	582
July	42,800	52,300	95,100	--	394	394
August	890	49,600	50,500	46	569	615
September	30,400	52,200	82,600	509	1,170	1,680
October	40,900	84,800	126,000	105	611	716
November	57,600	35,600	93,200	200	634	834
January–November	242,000	576,000	818,000	1,400	7,780	9,180

<sup>r</sup>Revised. -- Zero.

<sup>1</sup>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 SILICOMANGANESE IN NOVEMBER 2023<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country or locality <sup>4</sup>	Gross weight	Mn content	Value	January–November <sup>3</sup>		
				Gross weight	Mn content	Value
Australia	--	--	--	50,400	31,800	\$64,700,000
Georgia	205	133	\$234,000	36,500	25,300	44,600,000
India	594	286	622,000	3,250	1,830	4,950,000
Malaysia	4,520	3,070	4,500,000	23,300	15,600	29,300,000
Mexico	3,360	2,160	3,390,000	33,800	21,700	38,200,000
Norway	1,480	908	2,580,000	9,960	6,210	17,400,000
South Africa	--	--	--	78,000	50,600	85,800,000
Spain	--	--	--	160	104	226,000
Vietnam	--	--	--	50	33	56,000
Zambia	100	37	106,000	300	168	314,000
Other [2 countries and (or) localities]	--	--	--	26	16	49,500
Total	10,300	6,590	11,400,000	236,000	153,000	286,000,000

-- Zero.

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

<sup>2</sup>Includes Harmonized Tariff Schedule of the United States code 7202.30.0000.

<sup>3</sup>May include revisions to previously published data.

<sup>4</sup>Presentation of monthly data is based on the January–November quantities (gross weight) of the leading countries.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN NOVEMBER 2023<sup>1</sup>

(Metric tons, unless otherwise specified)

Type and country or locality	HTS <sup>3</sup> code	Gross weight	Mn content	Value	January–November <sup>2</sup>		
					Gross weight	Mn content	Value
Low carbon, less than 1% C: <sup>4</sup>	7202.19.1000						
Canada		--	--	--	13	11	\$50,200
India		--	--	--	63	51	93,400
Japan		80	64	\$123,000	920	749	1,650,000
Korea, Republic of		--	--	--	7,290	6,330	16,700,000
Mexico		--	--	--	3,800	3,070	6,780,000
Norway		2,820	2,290	4,070,000	26,100	21,100	44,500,000
South Africa		247	234	743,000	2,300	1,970	6,620,000
Spain		18	15	82,100	61	50	291,000
Taiwan		--	--	--	3	3	11,500
Vietnam		--	--	--	80	75	187,000
Other [1 country and (or) locality]		--	--	--	1	1	3,620
Total		3,170	2,600	5,020,000	40,700	33,400	76,900,000
Medium carbon, 1%–2% C:	7202.19.5000						
China		--	--	--	3	2	9,310
India		2	1	4,300	432	346	868,000
Korea, Republic of		--	--	--	16,000	12,800	24,800,000
Malaysia		--	--	--	2,340	1,730	3,160,000
Mexico		--	--	--	1,500	1,160	3,340,000
Norway		2,600	2,110	3,020,000	27,500	22,300	40,200,000
South Africa		2,600	2,080	3,590,000	16,300	13,000	30,200,000
Thailand		--	--	--	130	104	469,000
Total		5,200	4,200	6,620,000	64,100	51,500	103,000,000
Medium carbon, 2%–4% C:	7202.11.1000						
China		--	--	--	27	21	27,700
India		--	--	--	108	82	106,000
Total		--	--	--	135	103	134,000
High carbon, over 4% C: <sup>4</sup>	7202.11.5000						
Australia		--	--	--	42,900	32,800	42,100,000
Brazil		--	--	--	433	318	532,000
Georgia		--	--	--	324	235	292,000
India		5,400	3,520	5,260,000	31,900	20,800	32,800,000
Korea, Republic of		--	--	--	4,000	3,040	4,370,000
Malaysia		8,340	6,370	8,400,000	90,500	68,600	109,000,000
South Africa		650	499	740,000	13,700	10,500	21,800,000
Spain		--	--	--	79	59	265,000
United Arab Emirates		--	--	--	151	114	161,000
Zambia		271	206	357,000	1,480	1,120	1,640,000
Other [3 countries and (or) localities]		--	--	--	109	69	299,000
Total		14,700	10,600	14,800,000	186,000	138,000	213,000,000
Grand total		23,000	17,400	26,400,000	290,000	223,000	393,000,000

-- Zero.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Harmonized Tariff Schedule of the United States.

<sup>4</sup>Presentation of monthly data is based on the January–November quantities (gross weight) of the leading countries.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn)  
IN NOVEMBER 2023<sup>1</sup>

(Metric tons, unless otherwise specified)

Type and country or locality	HTS <sup>3</sup> code	Gross weight	Mn content	Value	January–November <sup>2</sup>		
					Gross weight	Mn content	Value
More than 20%, but less than 47% manganese:	2602.00.0040						
Belgium		--	--	--	116	46	\$53,500
China		--	--	--	84	39	5,760
Malta		6	3	\$3,280	6	3	3,280
Mexico		5,910	2,280	669,000	8,770	3,360	1,270,000
South Africa		177	76	46,200	3,140	1,390	938,000
Total		6,090	2,360	718,000	12,100	4,840	2,270,000
47% or more manganese:	2602.00.0060						
Brazil		--	--	--	155	75	243,000
China		--	--	--	(4)	(4)	15,100
France		--	--	--	17	8	25,200
Gabon		50,900	26,400	11,900,000	224,000	126,000	50,600,000
India		49	23	61,800	202	98	239,000
Mexico		--	--	--	700	456	573,000
South Africa		86	43	25,600	1,790	911	437,000
Total		51,100	26,500	12,000,000	227,000	127,000	52,100,000
Grand total		57,200	28,800	12,800,000	239,000	132,000	54,400,000

-- Zero.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Harmonized Tariff Schedule of the United States.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE  
IN NOVEMBER 2023<sup>1, 2</sup>

(Metric tons, unless otherwise specified)

Country or locality <sup>4</sup>	Gross weight	Value	January–November <sup>3</sup>	
			Gross weight	Value
Belgium	--	--	83	\$142,000
Brazil	18	\$19,900	290	380,000
Colombia	188	443,000	886	2,120,000
Germany	--	--	28	67,100
Greece	198	508,000	1,390	3,730,000
India	--	--	14	27,100
Indonesia	--	--	18	45,500
Japan	12	19,600	386	884,000
Mexico	--	--	37	62,200
Spain	--	--	58	98,400
Other [2 countries and (or) localities]	--	--	11	11,100
Total	415	990,000	3,200	7,570,000

-- Zero.

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

<sup>2</sup>Includes Harmonized Tariff Schedule of the United States code 2820.10.0000.

<sup>3</sup>May include revisions to previously published data.

<sup>4</sup>Presentation of monthly data is based on the January–November quantities (gross weight) of the leading countries.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL  
IN NOVEMBER 2023<sup>1</sup>

(Metric tons, unless otherwise specified)

Type and country or locality	HTS <sup>3</sup> code	Gross weight	Value	January–November <sup>2</sup>	
				Gross weight	Value
Unwrought flake:	8111.00.4700				
China		72	\$141,000	11,600	\$25,800,000
Indonesia		272	459,000	1,810	3,450,000
Japan		(4)	442,000	68	4,760,000
Mexico		8	52,300	106	621,000
South Africa		567	2,190,000	4,570	17,100,000
Total		920	3,280,000	18,100	51,700,000
Unwrought powder:	8111.00.4910				
China		--	--	99	197,000
Mexico		--	--	1	5,440
South Africa		140	630,000	1,230	6,300,000
Total		140	630,000	1,330	6,500,000
Unwrought, other:	8111.00.4990				
Belgium		20	65,700	24	84,000
Canada		--	--	40	137,000
China		849	2,150,000	28,200	65,500,000
Germany		1	12,800	151	374,000
Indonesia		--	--	108	228,000
Poland		--	--	(4)	3,200
South Africa		396	794,000	919	3,280,000
Total		1,270	3,020,000	29,500	69,600,000
Other manganese, wrought:	8111.00.6000				
Canada		--	--	2	27,800
China		--	--	6	64,700
Germany		--	--	(4)	26,500
India		--	--	1	37,900
Japan		(4)	6,850	3	81,900
Mexico		--	--	171	949,000
Sweden		--	--	30	545,000
United Kingdom		(4)	2,080	(4)	2,080
Total		(4)	8,930	213	1,730,000
Metallic waste and scrap:	8111.00.3000				
Canada		--	--	175	121,000
China		--	--	20	46,400
Total		--	--	195	167,000
Grand total		2,330	6,940,000	49,300	130,000,000

-- Zero.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Harmonized Tariff Schedule of the United States.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.



TABLE 8  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OR LOCALITY OF DESTINATION  
IN NOVEMBER 2023<sup>1</sup>

(Metric tons, unless otherwise specified)

Type and country or locality	Schedule B code	Gross weight	Value	January–November <sup>2</sup>	
				Gross weight	Value
Ore and concentrates with 20% or more manganese:	2602.00.0000				
Canada		--	--	812	\$292,000
Guyana		166	\$77,800	170	101,000
Ireland		--	--	5	28,500
Korea, Republic of		34	16,100	232	640,000
Mexico		--	--	178	100,000
Sweden		--	--	7	3,500
Total		200	94,000	1,400	1,170,000
Ferromanganese:	7202.19.0000				
2% or less carbon:					
Australia		--	--	1	2,670
Canada		142	236,000	1,030	2,280,000
France		--	--	7	12,400
Mexico		--	--	23	31,200
United Kingdom		--	--	4	7,270
Total		142	236,000	1,070	2,340,000
More than 2% carbon:	7202.11.0000				
Australia		--	--	9	25,000
Canada		57	162,000	503	1,280,000
China		--	--	18	51,500
Guyana		--	--	11	31,600
Japan		--	--	1	8,460
Mexico		--	--	2	8,720
Poland		--	--	1	17,000
Slovenia		(3)	2,720	2	24,400
Total		58	165,000	548	1,450,000
Ferrosilicon manganese:	7202.30.0000				
Canada		227	275,000	2,960	4,160,000
Italy		--	--	8	10,900
Mexico		--	--	19	29,900
Total		227	275,000	2,980	4,200,000
Metal, including alloys and waste and scrap: <sup>4, 5</sup>	8111.00.0000				
Brazil		--	--	38	14,200
Canada		7	62,400	229	962,000
China		5	139,000	152	1,510,000
Costa Rica		--	--	137	87,900
France		1	10,500	41	244,000
Germany		--	--	32	139,000
India		221	209,000	389	321,000
Japan		--	--	125	721,000
Malaysia		--	--	2,270	1,700,000
Mexico		31	26,200	267	755,000
Other [12 countries and (or) localities]		1	24,500	52	700,000
Total		266	471,000	3,730	7,150,000
Grand total		891	1,240,000	9,730	16,300,000

-- Zero.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Less than ½ unit.

<sup>4</sup>Presentation of monthly data is based on the January–November quantities (gross weight) of the leading countries.

<sup>5</sup>Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS  
IN NOVEMBER 2023<sup>1</sup>

Compound	HTS <sup>3</sup> or Schedule B code <sup>4</sup>	Gross weight (metric tons)	Value (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands)	January–November <sup>2</sup>		
					Gross weight (metric tons)	Value (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands)
Imports for consumption:							
Manganese dioxide	2820.10.0000	415	\$990	Greece 198; \$508.	3,200	\$7,570	Greece 1,390; \$3,730.
Manganese oxides other than dioxide	2820.90.0000	1,110	757	South Africa 449; \$296.	18,400	12,900	South Africa 6,510; \$3,260.
Manganites, manganates, and other permanganates	2841.69.0090	(5)	5	China (all).	6	45	China (all).
Potassium permanganate	2841.61.0000	170	499	India (all).	3,340	10,800	India 3,270; \$10,700.
Sodium permanganate	2841.69.0010	357	831	India 214; \$559.	5,110	14,000	China 2,930; \$7,540.
Other sulfates, including manganese sulfate	2833.29.5100	4,510	5,230	India 1,880; \$963.	43,900	45,800	Mexico 16,300; \$16,700.
Exports:							
Manganese dioxide	2820.10.0000	517	613	Canada 366; \$275.	6,920	7,480	Canada 4,200; \$3,290.
Manganese oxides other than dioxide	2820.90.0000	412	814	Canada 172; \$247.	5,470	11,600	United Arab Emirates 1,820; \$2,610.
Manganites, manganates, and other permanganates	2841.69.0090	61	159	Canada (all).	271	730	Canada 237; \$526.
Potassium permanganate	2841.61.0000	306	1,100	Brazil 144; \$450.	996	4,110	Belgium 320; \$1,080.
Sodium permanganate	2841.69.0010	(5)	5	Mexico (all).	274	878	Belgium 267; \$743.
Other sulfates, including manganese sulfate	2833.29.9100	1,550	2,060	Canada 1,090; \$740.	18,300	29,500	Canada 12,800; \$10,300.

XX Not applicable. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Harmonized Tariff Schedule of the United States.

<sup>4</sup>Imports for consumption are represented by HTS codes. Exports are represented by Schedule B codes.

<sup>5</sup>Less than ½ unit.

Source: U.S. Census Bureau.