

Mineral Industry Surveys

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MANGANESE IN DECEMBER 2022

On a gross-weight basis, U.S. imports of manganese ore in December 2022 decreased by 56% to 23,300 metric tons (t) from 52,900 t in November 2022 (fig. 1, table 5). In December 2022, the sole source of manganese ore, >20% – <47% grade, was South Africa and the leading source for >47% grade was Gabon. Total imports of manganese ore during 2022 were 13% more than those during 2021.

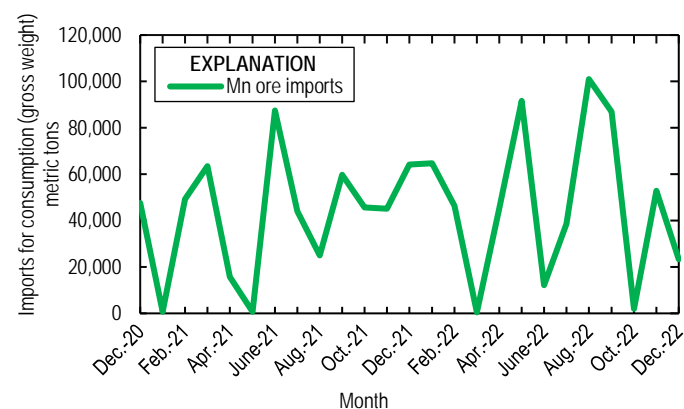


Figure 1. Monthly imports of manganese (Mn) ore from December 2020 through December 2022. Source: U.S. Census Bureau.

Prices

In December 2022, the average spot prices for manganese ore deliveries to China were \$4.05 per metric ton unit, 36%–38% grade, and \$4.46 per metric ton unit, 44% grade, essentially unchanged and 3% more, respectively, than the November 2022

prices (fig. 2, table 1). Compared with the monthly average prices in December 2021, the 36%–38%-grade price was 13% less and the 44%-grade price was 21% less.

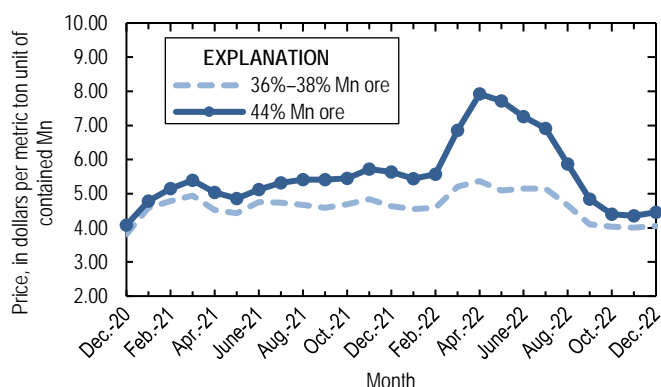


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from December 2020 through December 2022. Source: CRU Group.

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TABLE 1
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN DECEMBER 2022

		Low	Average	High
Manganese ferroalloys: ¹				
High-carbon ferromanganese, 76% manganese	dollars per long ton of contained manganese	1,350.00	1,403.13	1,456.25
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	157.50	159.00	160.50
Silicomanganese, 65% manganese	do.	79.00	80.75	82.50
Manganese metal, 99.7% manganese flake ²	cents per pound	200.00	220.00	240.00
Manganese ore: ^{3,4}				
36%–38% manganese	dollars per metric ton unit contained manganese	3.98	4.05	4.10
44% manganese	do.	4.20	4.46	4.60

do. Ditto.

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

²CRU 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.

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

⁴To 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 MANGANESE¹

(Metric tons)

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2021:						
December	65,000	86,700	152,000	21	1,040 ^r	1,060 ^r
January–December	505,000 ^r	685,000 ^r	1,190,000	1,110	15,400 ^r	16,500 ^r
2022:						
January	66,100	48,200	114,000	41	190	231
February	46,600	93,900	140,000	86	407	493
March	793	41,700	42,500	19	1,090	1,110
April	45,300	106,000	152,000	136	722	858
May	92,200	37,100	129,000	48	590	638
June	12,300	43,600	56,000	22	1,240	1,260
July	38,800	74,100	113,000	20	844	864
August	102,000	70,600	172,000	40	1,010	1,050
September	87,100	77,200	164,000	37	637	674
October	2,060	40,200	42,200	58	792	850
November	53,100	36,400	89,500	178	1,320	1,500
December	23,400	126,000	149,000	211	584	795
January–December	569,000	795,000	1,360,000	895	9,430	10,300

^rRevised.

¹Data 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 DECEMBER 2022^{1,2}

(Metric tons, unless otherwise specified)

Country or locality ⁴	Gross weight	Mn content	Value	January–December ³		
				Gross weight	Mn content	Value
Australia	--	--	--	62,900	41,500	\$161,000,000
Brazil	3,010	1,960	\$3,610,000	3,410	2,220	4,160,000
Georgia	350	253	541,000	114,000	82,300	246,000,000
India	22,100	14,300	29,900,000	33,700	21,800	48,700,000
Malaysia	8,610	5,630	17,800,000	46,200	30,300	94,900,000
Mexico	2,600	1,660	3,250,000	32,300	20,800	45,300,000
Norway	1,340	824	2,570,000	27,100	17,300	58,500,000
Russia	--	--	--	8,250	1,510	18,800,000
South Africa	16,900	11,000	18,600,000	89,800	58,300	98,900,000
Spain	135	82	308,000	3,340	2,170	6,500,000
Other [6 countries and (or) localities]	--	--	--	1,660	1,080	3,190,000
Total	55,000	35,700	76,500,000	423,000	279,000	785,000,000

-- Zero.

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

²Includes Harmonized Tariff Schedule of the United States code 7202.30.0000.

³May include revisions to previously published data.

⁴Presentation of monthly data is based on the January–December quantities (gross weight) of the leading countries.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN DECEMBER 2022¹

(Metric tons, unless otherwise specified)

Type and country or locality	HTS ³ code	Gross weight	Mn content	Value	January–December ²		
					Gross weight	Mn content	Value
Low carbon, less than 1% C:	7202.19.1000						
Canada		12	10	\$33,500	15	12	\$39,300
China		--	--	--	322	261	956,000
Japan		80	64	199,000	1,370	1,110	3,890,000
Kazakhstan		--	--	--	12	10	20,000
Korea, Republic of		1,000	921	2,940,000	5,250	4,580	19,100,000
Mexico		987	801	3,220,000	3,900	3,150	12,800,000
Norway		6,200	5,060	11,800,000	32,800	26,600	84,900,000
South Africa		2,870	2,320	4,490,000	3,230	2,650	5,210,000
Spain		40	32	231,000	370	299	1,160,000
Total		11,200	9,210	22,900,000	47,300	38,700	128,000,000
Medium carbon, 1%–2% C:	7202.19.5000						
Canada		20	16	188,000	20	16	188,000
India		--	--	--	19	15	33,300
Italy		--	--	--	8	6	11,500
Korea, Republic of		6,000	4,800	12,300,000	30,600	24,500	77,900,000
Mexico		129	97	410,000	4,030	3,150	10,700,000
Norway		1,200	979	2,020,000	5,200	4,240	12,400,000
South Africa		4,550	3,650	13,500,000	19,000	15,000	59,700,000
Total		11,900	9,540	28,400,000	58,800	47,000	161,000,000
Medium carbon, 2%–4% C, South Africa:	7202.11.1000	--	--	--	199	156	186,000
High carbon, over 4% C: ⁴	7202.11.5000						
Australia		449	329	674,000	53,100	40,600	119,000,000
Brazil		--	--	--	262	192	558,000
India		19,200	14,600	22,400,000	43,700	32,800	66,700,000
Korea, Republic of		2,000	1,520	2,720,000	11,100	8,440	20,500,000
Malaysia		17,200	13,000	34,800,000	70,200	53,200	139,000,000
Norway		--	--	--	2,500	1,970	3,390,000
Russia		--	--	--	16,900	12,900	33,600,000
South Africa		3,560	2,720	7,980,000	21,400	16,500	54,000,000
United Kingdom		--	--	--	3,130	2,370	6,110,000
Zambia		216	167	376,000	899	691	1,320,000
Other [4 countries and (or) localities]		9	7	14,800	483	355	1,170,000
Total		42,600	32,300	68,900,000	224,000	170,000	445,000,000
Grand total		65,700	51,100	120,000,000	330,000	256,000	734,000,000

-- Zero.

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

²May include revisions to previously published data.

³Harmonized Tariff Schedule of the United States.

⁴Presentation of monthly data is based on the January–December 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 DECEMBER 2022¹

(Metric tons, unless otherwise specified)

Type and country or locality	HTS ³ code	Gross weight	Mn content	Value	January–December ²		
					Gross weight	Mn content	Value
More than 20%, but less than 47% manganese:	2602.00.0040						
Mexico		--	--	--	77,000	28,900	\$14,500,000
Netherlands		--	--	--	244	61	71,000
Slovakia		--	--	--	53	16	19,000
South Africa		715	334	\$216,000	215,000	83,500	35,200,000
Total		715	334	216,000	293,000	112,000	49,700,000
47% or more manganese:	2602.00.0060						
Brazil		--	--	--	214	106	137,000
France		--	--	--	16	9	25,200
Gabon		22,400	11,700	5,010,000	269,000	173,000	74,600,000
Mexico		--	--	--	679	467	624,000
Morocco		--	--	--	16	9	30,200
Netherlands		17	9	25,200	33	18	44,200
South Africa		100	47	29,200	3,100	1,520	1,140,000
Total		22,600	11,800	5,070,000	273,000	175,000	76,600,000
Grand total		23,300	12,100	5,280,000	566,000	287,000	126,000,000

-- Zero.

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

²May include revisions to previously published data.

³Harmonized Tariff Schedule of the United States.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE
IN DECEMBER 2022^{1, 2}

(Metric tons, unless otherwise specified)

Country or locality ⁴	Gross weight	Value	January–December ³	
			Gross weight	Value
Belgium	--	--	65	\$284,000
Brazil	29	\$38,000	135	178,000
China	--	--	155	294,000
Colombia	--	--	17	44,100
Greece	--	--	907	2,770,000
India	--	--	19	31,900
Japan	18	45,500	2,340	5,950,000
Mexico	--	--	21	35,000
South Africa	--	--	34	57,200
Spain	28	47,900	130	221,000
Other [2 countries and (or) localities]	2	9,800	13	70,800
Total	77	141,000	3,840	9,940,000

-- Zero.

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

²Includes Harmonized Tariff Schedule of the United States code 2820.10.0000.

³May include revisions to previously published data.

⁴Presentation of monthly data is based on the January–December quantities (gross weight) of the leading countries.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL
IN DECEMBER 2022¹

(Metric tons, unless otherwise specified)

Type and country or locality	HTS ³ code	Gross weight	Value	January–December ²	
				Gross weight	Value
Unwrought flake:	8111.00.4700				
China		2,320	\$4,990,000	8,500	\$29,800,000
India		--	--	25	148,000
Indonesia		--	--	260	1,130,000
Japan		8	724,000	62	6,820,000
Mexico		20	204,000	41	439,000
South Africa		463	1,970,000	3,730	20,900,000
Total		2,810	7,890,000	12,600	59,300,000
Unwrought powder:	8111.00.4910				
China		45	107,000	315	1,240,000
Germany		--	--	1	14,000
Mexico		--	--	61	500,000
South Africa		193	1,230,000	1,660	10,800,000
Total		238	1,340,000	2,030	12,500,000
Unwrought, other:	8111.00.4990				
China		1,760	4,720,000	24,700	101,000,000
Germany		14	29,900	812	4,120,000
South Africa		61	407,000	1,190	6,470,000
Spain		--	--	153	342,000
Total		1,840	5,160,000	26,800	111,000,000
Other manganese, wrought:	8111.00.6000				
China		33	85,800	44	185,000
Germany		--	--	157	2,230,000
India		--	--	(4)	8,690
Japan		--	--	(4)	60,600
Mexico		14	88,700	152	1,170,000
Sweden		--	--	121	2,110,000
United Kingdom		(4)	2,840	(4)	5,680
Total		47	177,000	474	5,770,000
Metallic waste and scrap	8111.00.3000				
Canada		64	21,200	397	206,000
China		--	--	(4)	3,600
India		--	--	(4)	3,000
Japan		--	--	6	34,500
Total		64	21,200	403	247,000
Grand total		5,000	14,600,000	42,300	189,000,000

-- Zero.

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

²May include revisions to previously published data.

³Harmonized Tariff Schedule of the United States.

⁴Less 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 DECEMBER 2022¹

(Metric tons, unless otherwise specified)

Type and country or locality	Schedule B code	Gross weight	Value	January–December ²	
				Gross weight	Value
Ore and concentrates with 20% or more manganese:	2602.00.0000				
Canada		53	\$32,000	377	\$280,000
Guyana		--	--	56	139,000
Korea, Republic of		117	140,000	220	189,000
Mexico		19	8,400	185	69,600
Netherlands		21	100,000	51	241,000
United Kingdom		--	--	6	2,610
Total		211	281,000	895	921,000
Ferromanganese:	7202.19.0000				
2% or less carbon:					
Canada		176	552,000	2,250	5,250,000
Dominican Republic		--	--	13	24,200
Ecuador		9	10,400	9	10,400
France		--	--	10	19,800
Mexico		--	--	29	55,300
Saudi Arabia		--	--	21	40,800
Taiwan		--	--	2	3,890
United Kingdom		12	22,400	12	22,400
Venezuela		--	--	6	11,600
Total		197	584,000	2,350	5,440,000
More than 2% carbon:	7202.11.0000				
Canada		42	112,000	250	851,000
China		--	--	11	29,500
Costa Rica		--	--	3	11,200
Guyana		--	--	12	34,300
Kazakhstan		--	--	2	5,420
Mexico		--	--	83	307,000
Singapore		--	--	1	3,080
Slovenia		(3)	2,720	1	10,900
Thailand		--	--	1	9,940
Total		42	114,000	364	1,260,000
Ferrosilicon manganese:	7202.30.0000				
Canada		103	150,000	3,020	5,250,000
Mexico		--	--	29	60,300
Total		103	150,000	3,050	5,310,000
Metal, including alloys and waste and scrap: ^{4,5}	8111.00.0000				
Canada		10	104,000	405	2,180,000
China		9	276,000	204	5,480,000
France		1	15,100	16	87,000
Germany		--	--	75	55,000
India		--	--	328	378,000
Japan		82	310,000	172	1,030,000
Korea, Republic of		(3)	2,700	45	67,900
Malaysia		180	177,000	2,580	1,870,000
Mexico		2	18,000	158	549,000
Singapore		--	--	13	23,300
Other [13 countries and (or) localities]		1	30,300	26	951,000
Total		284	933,000	4,020	12,700,000
Grand total		837	2,060,000	10,700	25,600,000

-- Zero.

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

²May include revisions to previously published data.

³Less than ½ unit.

⁴Presentation of monthly data is based on the January–December quantities (gross weight) of the leading countries.

⁵Includes 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 2022¹

Compound	HTS ³ or Schedule B code ⁴	Gross weight (metric tons)	Value (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands)	January–December ²		
					Gross weight (metric tons)	Value (thousands)	Principal sources and destinations: gross weight (metric tons); value (thousands)
Imports for consumption:							
Manganese oxides other than dioxide	2820.90.0000	1,970	\$1,650	South Africa 992; \$653.	23,800	\$18,800	South Africa 8,870; \$5,540.
Manganites, manganates, and other permanganates	2841.69.0090	--	--	XX.	8	67	China 6; \$30.
Potassium permanganate	2841.61.0000	38	114	India (all).	1,170	3,370	India 1,100; \$3,220.
Sodium permanganate	2841.69.0010	108	301	India (all).	1,420	3,770	India 1,210; \$3,220.
Other sulfates, including manganese sulfate	2833.29.5100	3,120	5,680	Mexico 1,530; \$1,480.	71,400	76,900	China 33,700; \$29,300.
Exports:							
Manganese dioxide	2820.10.0000	401	582	Canada 310; \$263.	8,050	10,300	Canada 4,850; \$4,220.
Manganese oxides other than dioxide	2820.90.0000	466	1,180	United Arab Emirates 209; \$299.	5,830	12,300	United Arab Emirates 1,600; \$2,290.
Manganites, manganates, and other permanganates	2841.69.0090	6	45	Canada 6; \$12.	169	477	Canada 147; \$304.
Potassium permanganate	2841.61.0000	131	508	Brazil 54; \$190.	3,060	10,200	Belgium 1,900; \$5,530.
Sodium permanganate	2841.69.0010	12	90	El Salvador 11; \$53.	734	2,610	Belgium 649; \$1,880.
Other sulfates, including manganese sulfate	2833.29.9100	1,400	3,480	Canada 966; \$1,190.	19,600	36,700	Canada 14,000; \$15,100.

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits.

²May include revisions to previously published data.

³Harmonized Tariff Schedule of the United States.

⁴Imports for consumption are represented by HTS codes. Exports are represented by Schedule B codes.

Source: U.S. Census Bureau.