

# Mineral Industry Surveys

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#### **MANGANESE IN MAY 2022**

On a gross-weight basis, U.S. imports of manganese ore in May 2022 were 91,600 metric tons (t), more than double the 45,200 t of April 2022 (fig. 1, table 5). In May 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 for the first five months of 2022 were 91% more than those during the same period in 2021.

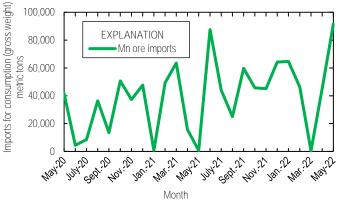


Figure 1. Monthly imports of manganese (Mn) ore from May 2020 through May 2022. Source: U.S. Census Bureau.

#### **Prices**

In May 2022, the average spot prices for manganese ore deliveries to China were \$5.09 per metric ton unit, 36%–38% grade, and \$7.72 per metric ton unit, 44% grade, 5% less and 3% less, respectively, than the April 2022 prices (fig. 2, table 1).

Compared with the monthly average prices in May 2021, the 36%–38%-grade price was 15% more, and the 44%-grade price was 59% more.

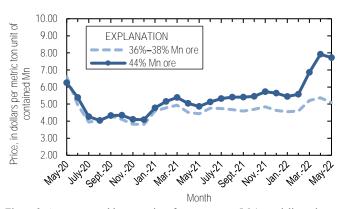


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from May 2020 through May 2022. Source: CRU Group.

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

		Low	Average	High
Manganese ferroalloys: <sup>1</sup>				
High-carbon ferromanganese, 76% manganese	dollars per long ton of contained manganese	2,900.00	2,925.00	2,950.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	260.00	262.50	265.00
Silicomanganese, 65% manganese	do.	135.00	136.00	137.00
Manganese metal, 99.7% manganese flake <sup>2</sup>	cents per pound	350.00	396.67	465.00
Manganese ore: <sup>3,4</sup>				
36%–38% manganese	dollars per metric ton unit contained manganese	5.00	5.09	5.30
44% manganese	do.	7.60	7.72	8.00

do. Ditto.

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

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

<sup>&</sup>lt;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%.

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

#### (Metric tons)

	Imp	orts for consumpti	on	Exports				
	Ore and	Ore and Ferroalloy			Ferroalloy			
	dioxide	and metal	Total	Ore	and metal	Total		
2021:								
May	1,000	58,600	59,600	412	1,470 <sup>r</sup>	1,880 <sup>r</sup>		
January–May	132,000	247,000 <sup>r</sup>	380,000 r	673	6,940 <sup>r</sup>	7,610 <sup>r</sup>		
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		
January-May	251,000	327,000	578,000	330	3,000	3,330		

Revised.

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

TABLE 3 U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN MAY  $2022^{1,\,2}$ 

(Metric tons, unless otherwise specified)

					January–May <sup>3</sup>	
	Gross	Mn	_	Gross	Mn	
Country or locality <sup>4</sup>	weight	content	Value	weight	content	Value
Australia	7,010	4,610	\$18,200,000	30,500	20,000	\$77,500,000
Georgia	1,240	870	2,460,000	51,100	37,400	110,000,000
India				10,700	6,920	16,800,000
Malaysia	718	468	1,430,000	11,000	7,170	21,000,000
Mexico	3,180	2,050	4,520,000	11,600	7,450	16,700,000
Norway	2,340	1,440	7,270,000	6,690	4,220	18,700,000
Russia				8,250	1,510	18,800,000
Singapore				239	157	480,000
Slovakia				30	20	56,300
South Africa				42,900	27,900	47,200,000
Other [2 countries and (or) localities]	27	12	71,100	43	23	121,000
Total	14,500	9,450	34,000,000	173,000	113,000	327,000,000

<sup>--</sup> Zero.

<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 Harmonized Tariff Schedule of the United States code 7202.30.0000.

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

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

 $\label{table 4} \text{U.s. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN MAY 2022}^1$ 

(Metric tons, unless otherwise specified)

						January–Ma	$y^2$
Type and country		Gross	Mn		Gross	Mn	
or locality	HTS <sup>3</sup> code	weight	content	Value	weight	content	Value
Low carbon, less than 1% C:	7202.19.1000						
Canada	_				3	3	\$5,790
China	_				20	16	47,300
Japan	_	120	96	\$483,000	810	656	2,100,000
Kazakhstan	_	12	10	20,000	12	10	20,000
Korea, Republic of	_				800	751	3,870,000
Mexico	=	96	78	334,000	155	126	411,000
Norway	_	4,000	3,240	15,100,000	16,800	13,600	49,200,000
South Africa	_	57	52	99,700	99	87	166,000
Spain	_				262	213	443,000
Total	=	4,290	3,480	16,100,000	18,900	15,500	56,300,000
Medium carbon, 1%–2% C:	7202.19.5000						
Italy	_	8	6	11,500	8	6	11,500
Korea, Republic of	_	3,300	2,640	9,970,000	12,100	9,680	35,700,000
Mexico	=	320	254	1,170,000	1,790	1,400	4,960,000
Norway	_	1,200	979	3,870,000	1,600	1,300	5,000,000
South Africa	_	81	64	269,000	11,200	8,800	36,700,000
Total	_	4,910	3,940	15,300,000	26,700	21,200	82,400,000
High carbon, over 4% C: <sup>4</sup>	7202.11.5000						
Australia	_				22,300	17,100	50,600,000
Brazil	_	20	14	60,400	207	151	390,000
Canada	_				30	21	89,200
India	_	100	7	139,000	13,000	9,690	21,200,000
Korea, Republic of	_	900	684	1,490,000	1,600	1,220	2,810,000
Malaysia	_	9,180	6,960	17,500,000	32,000	24,200	60,100,000
Mexico	_				100	70	185,000
Russia	_				16,900	12,900	33,600,000
South Africa	_	50	38	85,500	5,010	3,870	11,700,000
Zambia	_	158	120	156,000	583	446	809,000
Other [1 country and (or) locality]	_				3	2	2,730
Total	_	10,400	7,820	19,400,000	91,800	69,700	181,000,000
Grand total	_	19,600	15,200	50,700,000	137,000	106,000	320,000,000

<sup>--</sup> Zero.

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

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

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

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

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN MAY  $2022^1$ 

#### (Metric tons, unless otherwise specified)

						January–May <sup>2</sup>		
		Gross	Mn		Gross	Mn		
Type and country or locality	HTS <sup>3</sup> code	weight	content	Value	weight	content	Value	
More than 20%, but less than 47% manganese:	2602.00.0040							
Mexico		20	1	\$8,420	22,000	8,190	\$3,890,000	
Netherlands	_				244	61	71,000	
Slovakia	_				53	16	19,000	
South Africa	_	45,300	19,300	9,280,000	91,900	38,000	16,400,000	
Total	_	45,300	19,300	9,280,000	114,000	46,300	20,400,000	
47% or more manganese:	2602.00.0060							
Brazil	_	25	12	14,200	25	12	14,200	
Gabon	_	46,100	27,600	13,500,000	133,000	82,400	32,900,000	
Mexico	_				428	288	429,000	
Netherlands	_				16	9	19,000	
South Africa	_	200	97	76,000	519	251	201,000	
Total	_	46,300	27,700	13,600,000	134,000	83,000	33,600,000	
Grand total	_	91,600	47,000	22,900,000	248,000	129,000	53,900,000	

<sup>--</sup> Zero.

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

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

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

## $\label{eq:table 6} \text{U.s. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE} \\ \text{IN MAY 2022}^{1,2}$

#### (Metric tons, unless otherwise specified)

			January	-May <sup>3</sup>
	Gross		Gross	
Country or locality	weight	Value	weight	Value
Brazil			46	\$58,200
China	17	\$55,400	17	55,400
Germany			5	28,400
Greece	396	1,340,000	693	2,080,000
Japan	167	507,000	1,990	5,230,000
Mexico	<del></del>		15	26,000
Spain			21	35,000
Total	580	1,900,000	2,780	7,510,000

<sup>--</sup> Zero.

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

 $<sup>^2 \</sup>mbox{Includes Harmonized Tariff Schedule of the United States code 2820.10.0000.}$ 

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

### TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN MAY $2022^{\rm I}$

(Metric tons, unless otherwise specified)

				January-	-May <sup>2</sup>
		Gross	-	Gross	-
Type and country or locality	HTS <sup>3</sup> code	weight	Value	weight	Value
Unwrought flake:	8111.00.4700				
China		112	\$725,000	1,840	\$11,400,000
India				25	148,000
Indonesia		50	325,000	98	676,000
Japan		8	499,000	23	2,430,000
Mexico				21	235,000
South Africa		138	600,000	1,580	9,110,000
Total		308	2,150,000	3,590	24,000,000
Unwrought powder:	8111.00.4910				
China				92	235,000
Mexico				32	185,000
South Africa		100	748,000	475	3,230,000
Total		100	748,000	600	3,650,000
Unwrought, other:	8111.00.4990				
China		2,200	12,600,000	10,900	61,200,000
Germany		195	963,000	527	2,690,000
South Africa		106	503,000	534	2,170,000
Spain		24	54,800	73	167,000
Total		2,530	14,200,000	12,100	66,300,000
Other manganese, wrought:	8111.00.6000				
China				8	90,200
Germany		62	809,000	85	1,150,000
Japan				(4)	6,300
Mexico				23	235,000
Sweden				43	732,000
Total		62	809,000	159	2,210,000
Metallic waste and scrap	8111.00.3000				
Canada		10	34,500	81	65,800
Japan				(4)	7,000
Total		10	34,500	81	72,800
Grand total		3,010	17,900,000	16,500	96,200,000

<sup>--</sup> Zero.

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

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

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

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.

## TABLE 8 $U.S.~EXPORTS~OF~MANGANESE~ORE~(20\%~OR~MORE~Mn),~FERROMANGANESE,\\ SILICOMANGANESE,~AND~MANGANESE~METAL~BY~COUNTRIES~OR~LOCALITY~OF~DESTINATION\\ IN~MAY~2022^1$

(Metric tons, unless otherwise specified)

			_	January–l	May <sup>2</sup>
		Gross		Gross	
Type and country or locality	HTS <sup>3</sup> code	weight	Value	weight	Value
Ore and concentrates with 20% or more manganese:	2602.00.0000				
Canada		29	\$27,600	150	\$142,000
Guyana				35	16,500
Mexico		19	7,330	125	45,100
Netherlands	<del></del>			14	64,800
United Kingdom				6	2,610
Total	<del></del>	48	35,000	330	271,000
Ferromanganese:	7202.19.0000				
2% or less carbon:	<del></del>				
Canada	<del></del>	145	288,000	446	995,000
Dominican Republic	_	13	24,200	13	24,200
Mexico	<del></del>			26	49,200
Total	_	158	312,000	485	1,070,000
More than 2% carbon:	7202.11.0000				
Canada	_	3	8,270	106	367,000
China	<del></del>	6	17,100	6	17,100
Costa Rica	_			1	3,310
Kazakhstan	<del></del>	2	5,420	2	5,420
Mexico	_			41	186,000
Total	<del></del>	11	30,700	155	579,000
Ferrosilicon manganese:	7202.30.0000				
Canada	<del></del>	161	257,000	1,660	3,110,000
Mexico				15	40,600
Total	<del></del>	161	257,000	1,670	3,150,000
Metal, including alloys and waste and scrap: 4,5	8111.00.0000				
Canada	<del></del>	68	544,000	312	1,340,000
China		14	376,000	97	2,330,000
Costa Rica	_	(6)	8,550	1	61,700
France				14	53,400
Germany	_	39	14,300	44	38,500
India		100	52,000	159	87,600
Japan	_	45	424,000	90	723,000
Malaysia	<del>_</del>			84	135,000
Mexico	_	3	30,700	26	240,000
Norway		2	127,000	10	532,000
Other [7 countries and (or) localities]	_	1	56,600	2	75,200
Total		271	1,630,000	840	5,620,000
Grand total		648	2,270,000	3,480	10,700,000

<sup>--</sup> Zero.

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

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

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

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

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

<sup>&</sup>lt;sup>6</sup>Less than ½ unit.

TABLE 9  $\mbox{U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS } \\ \mbox{IN MAY } 2022^1$ 

					January–May <sup>2</sup>		
				Principal sources			Principal sources
				and destinations:			and destinations:
		Gross weight	Value	gross weight (metric tons);	Gross weight	Value	gross weight (metric tons);
Compound	HTS <sup>3</sup> code	(metric tons)	(thousands)	value (thousands)	(metric tons)	(thousands)	value (thousands)
Imports for consumption:							
Manganese oxides other than dioxide	2820.90.0000	1,650	\$1,510	Korea, Republic of 500; \$418.	6,370	\$5,650	Korea, Republic of 1,500; \$1,410.
Manganites, manganates, and other permanganates	2841.69.0090	(4)	5	China (all).	2	48	Canada 2; \$37.
Potassium permanganate	2841.61.0000	193	487	India 162; \$426.	405	1,070	India 361; \$986.
Sodium permanganate	2841.69.0010	121	337	India 102; \$272.	550	1,460	India 454; \$1,160.
Other sulfates, including manganese sulfate	2833.29.5100	5,770	7,180	China 4,350; \$3,880.	29,500	29,800	China 15,900; \$14,000.
Exports:							
Manganese dioxide	2820.10.0000	470	540	Canada 373; \$362.	3,460	3,990	Canada 2,350; \$2,080.
Manganese oxides other than dioxide	2820.90.0000	366	826	Poland 82; \$104.	2,600	4,970	United Arab Emirates 532; \$764.
Manganites, manganates, and other permanganates	2841.69.0090	1	42	Mexico (all).	74	214	Canada 72; \$150.
Potassium permanganate	2841.61.0000	333	1,130	Belgium 200; \$598.	1,670	5,400	Belgium 1,100; \$3,130.
Sodium permanganate	2841.69.0010	121	472	Belgium 114; \$341.	530	1,680	Belgium 496; \$1,440.
Other sulfates, including manganese sulfate	2833.29.9100	1,440	3,170	Canada 1,130; \$1,140.	8,410	13,900	Canada 6,630; \$6,020.

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

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

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

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.