

Mineral Industry Surveys

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MANGANESE IN AUGUST 2023

On a gross-weight basis, U.S. imports of manganese ore in August 2023 decreased to 475 metric tons (t) from 42,100 t in July 2023 (fig. 1, table 5). In August 2023, the sole source of manganese ore imports for >20%-<47% grade was South Africa and Mexico was the sole source for >47% grade manganese ore. Total imports of manganese ore for the first eight months of 2023 were 72% less than that during the same period in 2022.

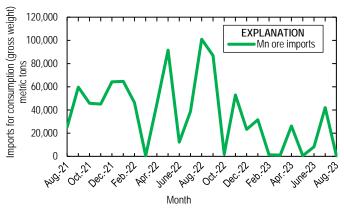


Figure 1. Monthly imports of manganese (Mn) ore from August 2021 through August 2023. Source: U.S. Census Bureau.

Prices

In August 2023, the average spot prices of manganese ore deliveries to China were \$3.61 per metric ton unit for 36%–38% grade and \$4.51 per metric ton unit for 44% grade, both were 3% less than the July 2023 prices (fig. 2, table 1). Compared with the monthly average prices in August 2022, both 36%–38% grade and 44% grade price were 23% less.

Industry News

Gabon, the second-leading manganese ore producing nation, experienced a military coup on August 30 following the results of the general election. Eramet Group (France), the leading producer of manganese ore in Gabon, announced a temporary suspension of operations on August 30 but resumed production the following day. (Schulz, 2023).

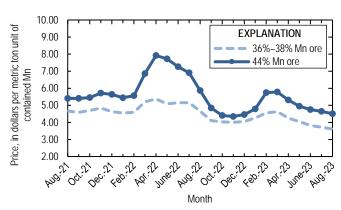


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from August 2021 through August 2023. Source: CRU Group.

Reference Cited

Schulz, Tanisha, 2023, How will Gabon's military coup impact the manganese supply chain?: Cape Town, South Africa, Project Blue, August 30. (Accessed October 12, 2023, via https://projectblue.com/blue/news-analysis/587/how-will-gabonE28099s-military-coup-impact-the-manganese-supply-chain.)

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

		Low	Average	High
Manganese ferroalloys: ¹				
High-carbon ferromanganese, 76% manganese	dollars per long ton of contained manganese	1,150.00	1,225.00	1,300.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	110.00	111.00	112.00
Silicomanganese, 65% manganese	do.	59.00	59.70	60.40
Manganese metal, 99.7% manganese flake ²	cents per pound	130.00	140.00	150.00
Manganese ore: ^{3, 4}				
36%–38% manganese	dollars per metric ton unit contained manganese	3.55	3.61	3.65
44% manganese	do.	4.45	4.51	4.65

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%.

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

(Metric tons)

	Imp	orts for consumpti	on	Exports			
	Ore and	Ferroalloy			Ferroalloy		
	dioxide	and metal	Total	Ore	and metal	Total	
2022:							
August	102,000	70,600	172,000	40	1,150 ^r	1,190 ^r	
January-August	404,000	508,000 ^r	912,000 ^r	412	6,230 ^r	6,640 ^r	
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	
January-August	113,000	403,000	516,000	590	5,370	5,960	

Revised. -- Zero.

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

 ${\it TABLE~3} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~SILICOMANGANESE~IN~AUGUST~2023}^{1,\,2}$

(Metric tons, unless otherwise specified)

					January-August ³	
	Gross	Mn		Gross	Mn	_
Country or locality	weight	content	Value	weight	content	Value
Australia	3,910	2,550	\$4,310,000	35,000	21,700	\$48,100,000
China				21	13	30,900
Georgia	17,500	12,200	21,700,000	18,800	13,100	23,400,000
India	100	58	142,000	2,150	1,250	3,660,000
Malaysia	3,430	2,190	3,820,000	14,400	9,510	19,700,000
Mexico	54	35	52,900	27,300	17,500	31,300,000
Norway	1,140	703	2,070,000	7,170	4,490	12,300,000
South Africa				61,100	39,700	67,200,000
Spain	160	104	226,000	160	104	226,000
Vietnam				50	33	56,000
Total	26,300	17,800	32,300,000	166,000	107,000	206,000,000

⁻⁻ 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.

TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST $2023^{\rm 1}$

(Metric tons, unless otherwise specified)

						January-Augu	ıst ²
Type and country		Gross	Mn		Gross	Mn	
or locality	HTS ³ code	weight	content	Value	weight	content	Value
Low carbon, less than 1% C:	7202.19.1000						
Canada	_				13	11	\$50,200
Japan	_	80	65	\$127,000	680	556	1,280,000
Korea, Republic of		502	460	1,340,000	4,890	4,250	11,600,000
Mexico					3,700	2,990	6,620,000
Norway		2,500	2,010	3,850,000	19,900	16,100	35,400,000
South Africa		19	18	65,800	1,840	1,560	5,280,000
Spain	_	24	20	116,000	43	35	209,000
Taiwan	=	3	3	11,500	3	3	11,500
Turkey	=				1	1	3,620
Vietnam	=				80	75	187,000
Total	=	3,130	2,580	5,510,000	31,200	25,600	60,600,000
Medium carbon, 1%–2% C:	7202.19.5000						
China	-				3	2	9,310
India	-				430	344	864,000
Korea, Republic of	-	2,500	2,000	3,950,000	10,000	8,000	16,600,000
Malaysia	=				2,100	1,530	2,920,000
Mexico	-	173	136	411,000	1,350	1,040	3,010,000
Norway	-	5,000	4,050	6,590,000	22,200	18,000	33,700,000
South Africa	_	·	,		7,800	6,220	18,300,000
Thailand	_				130	104	469,000
Total	_	7,670	6,190	10,900,000	44,000	35,300	75,800,000
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: ⁴	7202.11.5000						, , , , , ,
Australia	=	7,690	5,870	7,930,000	27,300	21,000	28,600,000
Brazil	=	72	53	74,500	331	244	425,000
Georgia	=				324	235	292,000
India	=	1,140	300	1,110,000	17,800	11,500	18,800,000
Korea, Republic of	=				1,500	1,140	1,640,000
Malaysia	=	1,180	865	1,260,000	63,300	48,000	81,600,000
South Africa	-	38	29	42,200	11,400	8,760	19,300,000
Spain	-				59	44	206,000
United Arab Emirates	_				151	114	161,000
Zambia	_	81	61	80,300	1,210	912	1,290,000
Other [3 countries and (or) localities]	_	17	11	48,200	75	54	195,000
Total	_	10,200	7,190	10,500,000	123,000	91,900	152,000,000
Grand total	_	21,000	16,000	27,000,000	199,000	153,000	289,000,000
Zero		21,000	10,000	27,000,000	1//,000	155,000	207,000,000

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–August quantities (gross weight) of the leading countries.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN AUGUST 2023 $^{\rm I}$

(Metric tons, unless otherwise specified)

						January-Augu	st ²
		Gross	Mn		Gross	Mn	
Type and country or locality	HTS ³ code	weight	content	Value	weight	content	Value
More than 20%, but less than 47% manganese:	2602.00.0040						
Belgium	_				116	46	\$53,500
Mexico	_				2,870	1,080	601,000
South Africa	_	375	147	127,000	2,370	1,060	736,000
Total	_	375	147	127,000	5,350	2,190	1,390,000
47% or more manganese:	2602.00.0060						
Brazil	_				128	62	203,000
China	_				(4)	(4)	15,100
Gabon					104,000	64,400	23,800,000
India	_				41	19	51,500
Mexico	_	100	65	84,100	700	456	573,000
South Africa	_				1,600	800	380,000
Total	_	100	65	84,100	106,000	65,800	25,000,000
Grand total		475	212	211,000	111,000	68,000	26,400,000

⁻⁻ 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.

${\it TABLE~6} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~DIOXIDE} \\ {\it IN~AUGUST~2023}^{1,\,2} \\$

(Metric tons, unless otherwise specified)

	Gross		Gross	_	
Country or locality ⁴	weight	Value	weight	Value	
Belgium			83	\$142,000	
Brazil			199	267,000	
Colombia	169	\$398,000	355	838,000	
Germany			13	35,400	
Greece	198	552,000	792	2,200,000	
India			14	27,100	
Indonesia			18	45,500	
Japan	37	88,500	319	732,000	
Mexico	10	17,800	37	62,200	
Spain			58	98,400	
Other [2 countries and (or) localities]	1	3,050	11	11,100	
Total	415	1,060,000	1,900	4,460,000	

⁻⁻ 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–August quantities (gross weight) of the leading countries

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN AUGUST 2023¹

(Metric tons, unless otherwise specified)

Type and country or locality HTS³ code weight Value Indonesia 1 5.810 8.18.00 4.82.30,00 4.82.30,00 4.90 11,200 4.90 11,200 4.90 11,200 4.90 11,200 4.90 11,200 4.90 11,200 4.90 199 197, 4.80 4.90 199 197, 4.80 4.90 197 5.30 4.90 197 5.30 4.90 197 5.30					January-	August ²
Unwrought flake: S111.00.4700 Total S11.00.4700			Gross	_		
Unwrought flake: S111.00.4700 Total S11.00.4700	Type and country or locality	HTS ³ code	weight	Value	weight	Value
Indonesia	Unwrought flake:				-	
Sapan 8 267,000 48 3,430, Mexico 1 5,810 81 492, South Africa 1,550 4,570,000 11,900 35,900, Unwrought powder: 8111.00.4910 19 34,400 99 197, Mexico 138 705,000 971 5,130, Total 157 739,000 1,070 5,330, Unwrought, other: 8111.00.4990 157 739,000 1,070 5,330, Unwrought, other: 8111.00.4990 157 739,000 1,070 5,330, Unwrought, other: 8111.00.4990 1,070 5,330, Germany 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 China 1 1 1 1 1 1 China 1 1 1 1 1 1 Germany 1 1 1 1 1 1 Germany 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 1 1 Germany 1 1 1 1 1 1 1 1 1	China		761	\$1,720,000	8,140	\$18,700,000
Mexico 1 5,810 81 492; South Africa 784 2,580,000 2,690 11,200 Total 1,550 4,570,000 11,900 35,900 Unwrought powder: 8111.00.4910 19 34,400 99 197, Mexico 1 5, South Africa 138 705,000 971 5,130, Total 157 739,000 1,070 5,330, Unwrought, other: 8111.00.4990 5 18, Canada 5 18, Canada 5 18, China 368 808,000 23,900 55,400 Germany 139 328, Indonesia 54 114,000 108 228, Poland (4) 3, South Africa 20 106,000 482 <t< td=""><td>Indonesia</td><td></td><td></td><td></td><td>989</td><td>2,100,000</td></t<>	Indonesia				989	2,100,000
South Africa 784 2,580,000 2,690 11,200 Total 1,550 4,570,000 11,900 35,900 Unwrought powder: 8111.00.4910 19 34,400 99 197, Mexico 1 5, South Africa 138 705,000 971 5,130, Total 157 739,000 1,070 5,330, Unwrought, other: 8111.00.4990 <	Japan		8	267,000	48	3,430,000
Total	Mexico		1	5,810	81	492,000
Unwrought powder: China 19 34,400 99 197,	South Africa		784	2,580,000	2,690	11,200,000
Unwrought powder: China 19 34,400 99 197,	Total		1,550	4,570,000	11,900	35,900,000
Mexico 1 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5	Unwrought powder:	8111.00.4910			·	
South Africa 138 705,000 971 5,130, Total 157 739,000 1,070 5,330, Unwrought, other: 8111.00.4990 5 18, Belgium 5 18, Canada 40 137, China 368 808,000 23,900 55,400, Germany 139 328, Indonesia 54 114,000 108 228, Poland 40 3, South Africa 20 106,000 482 2,280, Total 442 1,030,000 24,700 58,400, Other manganese, wrought: 8111.00.6000 4 60, Germany 4 60, Germany 4 60, Mexico 53 220,000 151 821, </td <td>China</td> <td></td> <td>19</td> <td>34,400</td> <td>99</td> <td>197,000</td>	China		19	34,400	99	197,000
Total Belgium Selfium Selfiu	Mexico				1	5,440
Dumyought, other: Belgium	South Africa		138	705,000	971	5,130,000
Belgium	Total		157	739,000	1,070	5,330,000
Canada 40 137, China 368 808,000 23,900 55,400, Germany 139 328, Indonesia 54 114,000 108 228, Poland (4) 3, South Africa 20 106,000 482 2,280, Total 442 1,030,000 24,700 58,400, Other manganese, wrought: 8111.00.6000 4 60, Germany 4 60, Germany 4 60, Japan 1 21,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden - 30 545, Total 85 27,600 103 <td>Unwrought, other:</td> <td>8111.00.4990</td> <td></td> <td></td> <td></td> <td></td>	Unwrought, other:	8111.00.4990				
China 368 808,000 23,900 55,400, Germany 139 328, Indonesia 54 114,000 108 228, Poland (4) 3, South Africa 20 106,000 482 2,280, Total 442 1,030,000 24,700 58,400, Other manganese, wrought: 4 60, Germany 4 60, Germany 4 60, India (4) 14,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 85 27,600 188 1,540, Metallic waste and scrap: 85 27,600 103 90, China 20 46, Tot	Belgium				5	18,300
Cermany	Canada				40	137,000
Indonesia 54	China		368	808,000	23,900	55,400,000
Poland	Germany				139	328,000
South Africa 20 106,000 482 2,280, Total 442 1,030,000 24,700 58,400, Other manganese, wrought: 8111.00.6000 4 60, China 4 21, India (4) 14,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Indonesia		54	114,000	108	228,000
Total 442 1,030,000 24,700 58,400, Other manganese, wrought: 8111.00.6000 4 60, China 4 60, Germany 4 21, India (4) 14,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Poland				(4)	3,200
Other manganese, wrought: 8111.00.6000 China 4 60, Germany (4) 21, India (4) 14,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	South Africa		20	106,000	482	2,280,000
Other manganese, wrought: 8111.00.6000 China 4 60, Germany (4) 21, India (4) 14,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Total		442	1,030,000	24,700	58,400,000
Germany (4) 21, Japan 1 14,400 1 27, Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Other manganese, wrought:	8111.00.6000			·	
India	China				4	60,200
Japan 1 21,400 2 60, Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 Canada 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Germany				(4)	21,600
Mexico 53 220,000 151 821, Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	India		(4)	14,400	1	27,600
Sweden 30 545, Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 Canada 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Japan		1	21,400	2	60,600
Total 54 256,000 188 1,540, Metallic waste and scrap: 8111.00.3000 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Mexico		53	220,000	151	821,000
Metallic waste and scrap: 8111.00.3000 Canada 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Sweden				30	545,000
Canada 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Total		54	256,000	188	1,540,000
Canada 85 27,600 103 90, China 20 46, Total 85 27,600 123 137,	Metallic waste and scrap:	8111.00.3000				
Total 85 27,600 123 137,			85	27,600	103	90,100
Total 85 27,600 123 137,	China				20	46,400
Grand total 2 290 6 620 000 38 000 101 000			85	27,600	123	137,000
514114 15441 5,000 50,000 101,000,	Grand total		2,290	6,620,000	38,000	101,000,000

⁻⁻ 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.

TABLE 8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OR LOCALITY OF DESTINATION IN AUGUST 20231

(Metric tons, unless otherwise specified)

		_		January–August ²	
		Gross		Gross	
Type and country or locality	Schedule B code	weight	Value	weight	Value
Ore and concentrates with 20% or more manganese:	2602.00.0000				
Canada	<u></u>	21	\$28,200	206	\$111,000
Guyana	_			4	23,500
Ireland	_			5	28,500
Korea, Republic of	_	25	149,000	189	573,000
Mexico	_			178	100,000
Sweden	_			7	3,500
Total	_	46	177,000	590	840,000
Ferromanganese:	7202.19.0000				
2% or less carbon:					
Australia				1	2,670
Canada		39	111,000	858	1,970,000
France				7	12,400
United Kingdom				4	7,270
Total		39	111,000	870	1,990,000
More than 2% carbon:	7202.11.0000				
Australia				9	25,000
Canada		114	282,000	418	1,050,000
China				18	51,500
Guyana	_			11	31,600
Japan		1	8,460	1	8,460
Mexico			, 	2	8,720
Poland				1	8,490
Slovenia		1	8,150	1	16,300
Total		116	299,000	462	1,200,000
Ferrosilicon manganese:	7202.30.0000				,,
Canada	_	230	330,000	1,700	2,540,000
Mexico				18	25,000
Total		230	330,000	1,720	2,570,000
Metal, including alloys and waste and scrap: ^{3,4}	8111.00.0000	200	220,000	1,720	2,570,000
Brazil				38	14,200
Canada	_	1	5,870	145	590,000
China	<u> </u>	44	16,200	143	1,250,000
Costa Rica	<u> </u>			82	57,800
France	_	28	27,700	39	213,000
Germany	-		27,700	31	74,300
India	_			108	82,600
	_	5	28,800	81	691,000
Japan Malaysia	_	176	202,000	1,900	1,370,000
Mexico	<u>—</u>	38	,	,	
	<u> </u>		54,800	164	634,000
Other [10 countries and (or) localities]	<u> </u>	7	35,700	49	567,000
Total	_	300	371,000	2,780	5,540,000
Grand total Zero.		731	1,290,000	6,420	12,100,000

⁻⁻ Zero.

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

²May include revisions to previously published data.
³Presentation of monthly data is based on the January–August quantities (gross weight) of the leading countries.

⁴Includes manganese-aluminum, other alloys, and waste and scrap.

TABLE 9 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN AUGUST 20231

						January-August ²			
				Principal sources			Principal sources		
				and destinations:			and destinations:		
		Gross weight	Value	gross weight (metric tons);	Gross weight	Value	gross weight (metric tons);		
Compound	HTS ³ or Schedule B code ⁴	(metric tons)	(thousands)	value (thousands)	(metric tons)	(thousands)	value (thousands)		
Imports for consumption:									
Manganese dioxide	2820.10.0000	415	\$1,060	Greece 198; \$552.	1,900	\$4,460	Greece 792; \$2,200.		
Manganese oxides other than dioxide	2820.90.0000	1,300	1,080	India 277; \$248.	14,000	9,520	South Africa 5,770; \$2,790.		
Manganites, manganates, and other permanganates	2841.69.0090	5	10	China (all).	6	31	China (all).		
Potassium permanganate	2841.61.0000	18	52	India (all).	2,940	9,650	India 2,870; \$9,520.		
Sodium permanganate	2841.69.0010	260	760	India 148; \$452.	4,400	12,300	China 2,730; \$7,150.		
Other sulfates, including manganese sulfate	2833.29.5100	2,390	3,650	Mexico 988; \$1,200.	30,500	32,700	Mexico 11,500; \$11,200.		
Exports:									
Manganese dioxide	2820.10.0000	338	341	Canada 254; \$212.	5,010	5,530	Canada 2,950; \$2,350.		
Manganese oxides other than dioxide	2820.90.0000	473	1,300	United Arab Emirates 152; \$217.	3,920	8,440	United Arab Emirates 1,250; \$1,790.		
Manganites, manganates, and other permanganates	2841.69.0090	52	135	Canada 34; \$64.	125	380	Canada 91; \$176.		
Potassium permanganate	2841.61.0000	1	33	Guyana (5); \$5.	415	1,890	Brazil 142; \$526.		
Sodium permanganate	2841.69.0010	76	224	Belgium 76; \$212.	120	438	Belgium 114; \$320.		
Other sulfates, including manganese sulfate	2833.29.9100	1,300	2,190	Canada 857; \$634.	13,200	21,500	Canada 9,510; \$7,930.		

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.

⁵Less than ½ unit.