

Mineral Industry Surveys

For information, contact:

Emily K. Schnebele, Acting Manganese Commodity Specialist National Minerals Information Center

Telephone: (703) 648-4945 Email: eschnebele@usgs.gov Benjamin N. Bryden (Data) Telephone: (703) 648-7953 Email: bbryden@usgs.gov

Internet: https://www.usgs.gov/centers/

national-minerals-information-center/mineral-industry-surveys.

MANGANESE IN FEBRUARY 2022

On a gross-weight basis, U.S. imports of manganese ore in February 2022 were 46,300 metric tons (t), 28% less than the amount in January 2022 (fig. 1, table 5). The leading source of manganese ore, >20% – <47% grade, was Mexico and the leading source for >47% grade was Gabon. Total imports of manganese ore for the first two months of 2022 were more than double those during the same period in 2021.

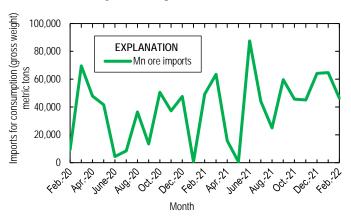


Figure 1. Monthly imports of manganese (Mn) ore from February 2020 through February 2022. Source: U.S. Census Bureau.

Prices

In February 2022, the average spot prices for manganese ore deliveries to China were \$4.59 per metric ton unit, 36%–38% grade, and \$5.57 per metric ton unit, 44% grade, essentially unchanged and slightly more, respectively, than the January

2022 prices (fig. 2, table 1). Compared with the monthly average prices in February 2021, the 36%–38%-grade price was 4% less, and the 44%-grade price was 8% more.

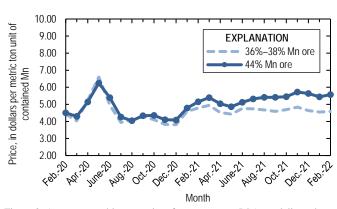


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from February 2020 through February 2022. Source: CRU Group.

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

| | Low | Average | High |
|---|--|--|--|
| | | | |
| dollars per long ton of contained manganese | 2,487.50 | 2,525.00 | 2,562.50 |
| cents per pound of contained manganese | 260.00 | 262.50 | 265.00 |
| do. | 125.00 | 127.50 | 130.00 |
| cents per pound | 455.00 | 461.13 | 470.00 |
| | | | |
| dollars per metric ton unit contained manganese | 4.50 | 4.59 | 4.73 |
| do. | 5.35 | 5.57 | 5.95 |
| | cents per pound of contained manganese do. cents per pound dollars per metric ton unit contained manganese | dollars per long ton of contained manganese cents per pound of contained manganese do. 125.00 cents per pound 455.00 dollars per metric ton unit contained manganese 4.50 | dollars per long ton of contained manganese 2,487.50 2,525.00 cents per pound of contained manganese 260.00 262.50 do. 125.00 127.50 cents per pound 455.00 461.13 dollars per metric ton unit contained manganese 4.50 4.59 |

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 consumpt | ion | Exports | | | |
|------------------|---------|-------------------|---------|------------|--------------------|--------------------|--|
| | Ore and | Ferroalloy | | Ferroalloy | | | |
| | dioxide | and metal | Total | Ore | and metal | Total | |
| 2021: | | | | | | | |
| February | 49,400 | 71,300 | 121,000 | 77 | 1,250 ^r | 1,330 ° | |
| January-February | 50,400 | 95,800 | 146,000 | 159 | 2,600 r | 2,760 ^r | |
| 2022: | | | | | | | |
| January | 66,100 | 48,200 | 114,000 | 41 | 190 | 231 | |
| February | 46,600 | 93,900 | 140,000 | 86 | 407 | 493 | |
| January–February | 113,000 | 142,000 | 255,000 | 126 | 598 | 724 | |

rRevised.

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

 ${\it TABLE~3}$ U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN FEBRUARY 2022 1,2

(Metric tons, unless otherwise specified)

| | | | | | January–February ³ | |
|---------------------|--------|---------|--------------|--------|-------------------------------|--------------|
| | Gross | Mn | - | Gross | Mn | |
| Country or locality | weight | content | Value | weight | content | Value |
| Australia | 5,400 | 3,560 | \$13,800,000 | 12,900 | 8,500 | \$32,100,000 |
| Georgia | 15,600 | 11,400 | 34,600,000 | 16,900 | 12,300 | 36,800,000 |
| India | 10,300 | 6,680 | 15,700,000 | 10,300 | 6,680 | 15,700,000 |
| Malaysia | 478 | 316 | 967,000 | 7,200 | 4,700 | 12,900,000 |
| Mexico | 1,790 | 1,150 | 2,550,000 | 4,710 | 3,020 | 6,840,000 |
| Norway | 40 | 25 | 144,000 | 3,000 | 1,960 | 7,420,000 |
| Russia | | | | 8,250 | 1,510 | 18,800,000 |
| Slovakia | 30 | 20 | 56,300 | 30 | 20 | 56,300 |
| South Africa | 15,600 | 10,100 | 17,200,000 | 15,600 | 10,100 | 17,200,000 |
| Total | 49,300 | 33,300 | 84,900,000 | 78,900 | 48,800 | 148,000,000 |

⁻⁻ 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.

 ${\it TABLE~4} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~FERROMANGANESE~IN~FEBRUARY~2022}^1$

(Metric tons, unless otherwise specified)

| | | | | | | January–Febru | ary 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 | | | | | 3 | 3 | \$5,790 |
| China | | 20 | 16 | \$47,300 | 20 | 16 | 47,300 |
| Japan | | 132 | 107 | 422,000 | 252 | 203 | 880,000 |
| Mexico | | | | | 58 | 47 | 77,600 |
| Norway | | 350 | 284 | 633,000 | 4,510 | 3,660 | 13,700,000 |
| South Africa | | | | | 19 | 16 | 31,600 |
| Total | | 502 | 407 | 1,100,000 | 4,860 | 3,950 | 14,700,000 |
| Medium carbon, 1%–2% C: | 7202.19.5000 | | | | | | |
| Korea, Republic of | | | | | 2,800 | 2,240 | 6,790,000 |
| Mexico | | 343 | 265 | 1,090,000 | 603 | 465 | 1,750,000 |
| South Africa | | 1,300 | 1,050 | 3,860,000 | 3,250 | 2,590 | 8,880,000 |
| Total | | 1,640 | 1,310 | 4,950,000 | 6,650 | 5,300 | 17,400,000 |
| High carbon, over 4% C: | 7202.11.5000 | | | | | | |
| Australia | | 11,700 | 8,950 | 26,000,000 | 11,700 | 8,950 | 26,000,000 |
| Brazil | | 20 | 14 | 59,900 | 116 | 84 | 220,000 |
| India | | 10,200 | 7,810 | 17,800,000 | 10,900 | 8,310 | 18,600,000 |
| Korea, Republic of | | | | | 700 | 532 | 1,310,000 |
| Malaysia | | 9,100 | 6,850 | 17,000,000 | 14,300 | 10,800 | 26,300,000 |
| Russia | | 7,750 | 5,890 | 15,600,000 | 7,750 | 5,890 | 15,600,000 |
| South Africa | | 653 | 501 | 1,380,000 | 1,420 | 1,090 | 2,900,000 |
| Zambia | | 425 | 327 | 653,000 | 425 | 327 | 653,000 |
| Total | | 39,900 | 30,300 | 78,400,000 | 47,400 | 36,000 | 91,600,000 |
| Grand total | | 42,000 | 32,100 | 84,500,000 | 58,900 | 45,300 | 124,000,000 |

⁻⁻ Zero.

 $^{^{1}\}mbox{Data}$ 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.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN FEBRUARY $2022^{\rm I}$

(Metric tons, unless otherwise specified)

| | | | | | J | January–February 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 | | | | | | |
| Mexico | _ | 1,530 | 551 | \$280,000 | 12,600 | 4,700 | \$2,100,000 |
| South Africa | _ | (4) | (4) | 8,130 | 45,900 | 18,400 | 6,900,000 |
| Total | _ | 1,530 | 551 | 288,000 | 58,500 | 23,100 | 9,000,000 |
| 47% or more manganese: | 2602.00.0060 | ' | | | | | |
| Gabon | _ | 44,700 | 25,900 | 10,500,000 | 52,000 | 32,400 | 11,700,000 |
| Mexico | _ | | | | 57 | 39 | 56,900 |
| Netherlands | _ | | | | 16 | 9 | 19,000 |
| South Africa | _ | 19 | 9 | 11,400 | 319 | 154 | 125,000 |
| Total | = | 44,700 | 25,900 | 10,500,000 | 52,400 | 32,600 | 11,900,000 |
| Grand total | = | 46,300 | 26,500 | 10,800,000 | 111,000 | 55,800 | 20,900,000 |

⁻⁻ 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 6 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN FEBRUARY $2022^{1,2}$

(Metric tons, unless otherwise specified)

| | | | January–February ³ | | |
|---------------------|--------|----------|-------------------------------|-----------|--|
| | Gross | | Gross | | |
| Country or locality | weight | Value | weight | Value | |
| Brazil | 11 | \$18,000 | 46 | \$58,200 | |
| Germany | | 19,600 | 5 | 28,400 | |
| Greece | | | 297 | 744,000 | |
| Japan | 328 | 883,000 | 1,360 | 3,510,000 | |
| Mexico | | | 15 | 26,000 | |
| Spain | | | 21 | 35,000 | |
| Total | 342 | 921,000 | 1,740 | 4,400,000 | |
| | | | | | |

⁻⁻ Zero

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

 $^{^2 \}text{Includes Harmonized Tariff Schedule}$ of the United States code 2820.10.0000.

³May include revisions to previously published data.

${\it TABLE~7} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~METAL} \\ {\it IN~FEBRUARY~2022}^1 \\$

(Metric tons, unless otherwise specified)

| | | | | January–Fe | ebruary ² |
|---------------------------------|-----------------------|--------|-------------|------------|----------------------|
| | | Gross | _ | Gross | |
| Type and country or locality | HTS ³ code | weight | Value | weight | Value |
| Unwrought flake: | 8111.00.4700 | | | | |
| China | | 948 | \$6,570,000 | 1,180 | \$7,540,000 |
| Japan | | (4) | 472,000 | 1 | 957,000 |
| Mexico | | 1 | 15,700 | 1 | 15,700 |
| South Africa | | 214 | 779,000 | 610 | 3,760,000 |
| Total | | 1,160 | 7,830,000 | 1,790 | 12,300,000 |
| Unwrought powder: | 8111.00.4910 | | | | |
| China | | 14 | 21,300 | 29 | 72,800 |
| Mexico | | | | 20 | 69,900 |
| South Africa | | 100 | 764,000 | 274 | 1,770,000 |
| Total | | 114 | 786,000 | 324 | 1,910,000 |
| Unwrought, other: | 8111.00.4990 | | | | |
| China | | 1,060 | 3,440,000 | 1,540 | 4,790,000 |
| Germany | | 134 | 661,000 | 230 | 997,000 |
| South Africa | | 81 | 455,000 | 183 | 963,000 |
| Total | | 1,270 | 4,560,000 | 1,960 | 6,750,000 |
| Other manganese, wrought: | 8111.00.6000 | | | | |
| China | | | | 3 | 36,400 |
| Germany | | | | 3 | 44,100 |
| Japan | | (4) | 2,470 | (4) | 2,470 |
| Sweden | | 12 | 207,000 | 15 | 261,000 |
| Total | | 12 | 210,000 | 21 | 344,000 |
| Metallic waste and scrap, Japan | 8111.00.3000 | (4) | 7,000 | (4) | 7,000 |
| Grand total | | 2,560 | 13,400,000 | 4,100 | 21,300,000 |

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ 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 FEBRUARY 2022^1

(Metric tons, unless otherwise specified)

| | | | | January–Fel | oruary ² |
|---|-----------------------|--------|-----------|-------------|---------------------|
| | | Gross | _ | Gross | |
| Type and country or locality | HTS ³ code | weight | Value | weight | Value |
| Ore and concentrates with 20% or more manganese: | 2602.00.0000 | | | | |
| Canada | | 61 | \$51,500 | 102 | \$92,700 |
| Mexico | | 19 | 7,330 | 19 | 7,330 |
| United Kingdom | | 6 | 2,610 | 6 | 2,610 |
| Total | | 86 | 61,400 | 126 | 103,000 |
| Ferromanganese: | 7202.19.0000 | | | | |
| 2% or less carbon: | | | | | |
| Canada | | 98 | 255,000 | 98 | 255,000 |
| Mexico | | 15 | 28,400 | 21 | 39,200 |
| Total | | 113 | 284,000 | 119 | 295,000 |
| More than 2% carbon: | 7202.11.0000 | | | | |
| Canada | | 1 | 2,760 | 21 | 54,900 |
| Costa Rica | | 1 | 3,310 | 1 | 3,310 |
| Mexico | | 41 | 186,000 | 41 | 186,000 |
| Total | | 42 | 192,000 | 62 | 244,000 |
| Ferrosilicon manganese, Canada | 7202.30.0000 | 245 | 528,000 | 245 | 528,000 |
| Metal, including alloys and waste and scrap: ^{4,5} | 8111.00.0000 | | | | |
| Canada | | | | 35 | 71,000 |
| China | | 18 | 282,000 | 50 | 1,060,000 |
| Costa Rica | | (6) | 17,700 | (6) | 17,700 |
| France | | (6) | 6,300 | 14 | 53,400 |
| Germany | | (6) | 4,920 | 5 | 24,200 |
| Japan | | 20 | 140,000 | 25 | 160,000 |
| Malaysia | | | | 82 | 44,300 |
| Mexico | | 2 | 65,800 | 15 | 152,000 |
| Norway | | 8 | 405,000 | 8 | 405,000 |
| Taiwan | _ | (6) | 2,780 | (6) | 2,780 |
| Other [1 country and (or) locality] | | | | (6) | 3,530 |
| Total | | 49 | 924,000 | 234 | 1,990,000 |
| Grand total | | 536 | 1,990,000 | 786 | 3,160,000 |

⁻⁻ 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–February quantities (gross weight) of the leading countries.

⁵Includes manganese-aluminum, other alloys, and waste and scrap.

⁶Less than ½ unit.

TABLE 9 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN FEBRUARY 20221

| | | | | | January–February ² | | |
|---|-----------------------|---------------|-------------|-------------------------------------|-------------------------------|-------------|-------------------------------------|
| | | | ** 1 | Principal sources and destinations: | | *** | Principal sources and destinations: |
| | 2 | Gross weight | Value | gross weight (metric tons); | Gross weight | Value | gross weight (metric tons); |
| Compound | HTS ³ code | (metric tons) | (thousands) | value (thousands) | (metric tons) | (thousands) | value (thousands) |
| Imports for consumption: | | | | | | | |
| Manganese oxides other than dioxide | 2820.90.0000 | 535 | \$554 | Mexico 360; \$299. | 2,430 | \$2,330 | South Africa 854; \$721. |
| Potassium permanganate | 2841.61.0000 | 91 | 239 | India (all). | 127 | 337 | India (all). |
| Sodium permanganate | 2841.69.0010 | 139 | 362 | India 81; \$197. | 267 | 677 | India 209; \$511. |
| Other sulfates, including manganese sulfate | 2833.29.5100 | 3,130 | 3,280 | Mexico 1,750; \$1,330. | 8,290 | 7,620 | Mexico 3,690; \$2,810. |
| Exports: | | | | | | | |
| Manganese dioxide | 2820.10.0000 | 497 | 541 | Canada 398; \$324. | 1,070 | 1,180 | Canada 772; \$628. |
| Manganese oxides other than dioxide | 2820.90.0000 | 328 | 638 | Canada 177; \$184. | 708 | 1,650 | Canada 229; \$249. |
| Manganites, manganates, and other permanganates | 2841.69.0090 | 1 | 8 | Costa Rica (all). | 32 | 72 | Canada 31; \$64. |
| Potassium permanganate | 2841.61.0000 | 369 | 1,130 | Belgium 261, \$729. | 617 | 1,830 | Belgium 443, \$1,180. |
| Sodium permanganate | 2841.69.0010 | 95 | 280 | Belgium (all). | 173 | 468 | Belgium 153, \$423. |
| Other sulfates, including manganese sulfate | 2833.29.9100 | 1,560 | 3,220 | Canada 1,220; \$1,740. | 3,000 | 5,450 | Canada 2,270; \$2,400. |

¹Data are rounded to no more than three significant digits.
²May include revisions to previously published data.
³Harmonized Tariff Schedule of the United States.