

Mineral Industry Surveys

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MANGANESE IN OCTOBER 2011

Preliminary domestic data (gross weight) for October 2011 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 48,400 metric tons (t). This was a slight increase from the amount consumed in September 2011. Manganese ore consumption during the first 10 months of 2011 was 454,000 t. This was a 19% increase from that consumed during the same period in 2010. Industry stocks of ore at the end of October

2011 were 153,000 t, which was a slight increase from those at the end of September 2011.

Data for U.S. manganese imports and exports for September 2011 are published in this issue.

Prices

Prices for manganese materials in October 2011, manganese content, are listed below.

Ferroalloys prices¹

| | <u>Price Range</u> | <u>Average Price</u> |
|---|--------------------|----------------------|
| High-carbon ferromanganese ² | 1,310.00–1,350.00 | 1,323.75 |
| Medium-carbon ferromanganese ³ | 102.00–105.00 | 102.75 |
| Silicomanganese ³ | 55.00–60.00 | 57.88 |

Manganese metal and ore prices⁴

| | <u>Price Range</u> | <u>Average Low, Mid, and High Prices</u> |
|------------------------------------|--------------------|--|
| Manganese metal ³ | 178.00–186.00 | 183.25–184.38–185.50 |
| 36%-39% Manganese ore ⁵ | 4.20–5.10 | 4.39–4.74–5.10 |
| 44% Manganese ore ⁵ | 5.05–5.50 | 5.11–5.31–5.50 |
| 48% Manganese ore ⁵ | 5.80–6.10 | 5.86–5.98–6.10 |

¹Source: Platts Metals Week, dealer import price; average prices reported for all transactions during the month.

²Dollars per gross ton.

³Cents per pound.

⁴Source: Ryan's Notes, cost and freight, China; average prices reported for the price range.

⁵Dollars per metric ton unit, contained manganese. To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 48 when the manganese content is 48%.

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE¹

(Metric tons, manganese content)²

| | Imports for consumption | | | Exports | | |
|-------------------|-------------------------|----------------------|---------|---------|----------------------|--------|
| | Ore and dioxide | Ferroalloy and metal | Total | Ore | Ferroalloy and metal | Total |
| 2010: | | | | | | |
| September | 24,500 | 30,700 | 55,200 | 92 | 2,040 | 2,140 |
| January–September | 206,000 | 374,000 | 580,000 | 6,640 | 13,100 | 19,800 |
| 2011: | | | | | | |
| January | 28,900 | 44,500 | 73,400 | 36 | 1,080 | 1,120 |
| February | 9,160 | 30,400 | 39,600 | 46 | 1,240 | 1,290 |
| March | 50,900 | 68,900 | 120,000 | 73 | 1,740 | 1,810 |
| April | 1,720 | 27,800 | 29,500 | 61 | 1,150 | 1,210 |
| May | 21,100 | 51,000 | 72,100 | 33 | 1,800 | 1,830 |
| June | 26,800 | 68,700 | 95,500 | 59 | 519 | 578 |
| July | 11,500 | 57,400 | 69,000 | 82 | 669 | 750 |
| August | 25,500 | 50,600 | 76,100 | 65 | 902 | 967 |
| September | 38,800 | 55,800 | 94,600 | -- | 611 | 611 |
| Total | 215,000 | 455,000 | 670,000 | 456 | 9,710 | 10,200 |

-- Zero.

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

²As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

Source: U.S. Census Bureau.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN SEPTEMBER 2011¹

(Metric tons)

| Source | Gross weight | Mn content | Customs value ² | January–September | | |
|--------------------|--------------|------------|----------------------------|-------------------|------------|----------------------------|
| | | | | Gross weight | Mn content | Customs value ² |
| Australia | 2,540 | 1,680 | \$2,670,000 | 39,800 | 26,400 | \$40,400,000 |
| Canada | 20 | 7 | 8,750 | 60 | 21 | 26,000 |
| Georgia | 17,000 | 12,000 | 18,100,000 | 100,000 | 69,500 | 120,000,000 |
| Greece | -- | -- | -- | 20 | 15 | 45,100 |
| India | 182 | 102 | 303,000 | 858 | 477 | 1,380,000 |
| Korea, Republic of | -- | -- | -- | 300 | 174 | 600,000 |
| Mexico | -- | -- | -- | 9,400 | 6,170 | 10,400,000 |
| Norway | 7,800 | 5,020 | 12,300,000 | 31,700 | 19,900 | 52,500,000 |
| Romania | -- | -- | -- | 7,490 | 4,620 | 7,490,000 |
| South Africa | 7,300 | 4,870 | 8,720,000 | 103,000 | 68,100 | 116,000,000 |
| Spain | 1,610 | 972 | 3,190,000 | 4,880 | 2,950 | 9,800,000 |
| Total | 36,500 | 24,700 | 45,300,000 | 298,000 | 198,000 | 359,000,000 |

-- Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN SEPTEMBER 2011¹

(Metric tons)

| Source | Gross weight | Mn content | Customs value ² | January–September | | |
|--------------------------------------|---------------|---------------|----------------------------|-------------------|----------------|----------------------------|
| | | | | Gross weight | Mn content | Customs value ² |
| Low carbon: | | | | | | |
| China | 214 | 201 | \$566,000 | 15,700 | 13,800 | \$42,500,000 |
| India | -- | -- | -- | 200 | 155 | 376,000 |
| Korea, Republic of | -- | -- | -- | 222 | 200 | 727,000 |
| Mexico | -- | -- | -- | 6,960 | 5,630 | 13,400,000 |
| Norway | -- | -- | -- | 3,170 | 2,560 | 6,090,000 |
| South Africa | 20 | 16 | 45,500 | 20 | 16 | 45,500 |
| Vietnam | 100 | 94 | 300,000 | 1,030 | 969 | 3,160,000 |
| Total | 334 | 310 | 912,000 | 27,300 | 23,300 | 66,200,000 |
| Medium carbon, 1%–2% C: | | | | | | |
| China | 40 | 31 | 99,600 | 234 | 198 | 530,000 |
| Korea, Republic of | -- | -- | -- | 26,500 | 21,300 | 47,700,000 |
| Mexico | -- | -- | -- | 8,560 | 6,880 | 16,000,000 |
| Norway | -- | -- | -- | 7,720 | 6,240 | 13,600,000 |
| South Africa | 674 | 538 | 1,320,000 | 18,900 | 15,100 | 32,400,000 |
| Spain | -- | -- | -- | 40 | 32 | 122,000 |
| Ukraine | -- | -- | -- | 392 | 342 | 783,000 |
| Total | 714 | 569 | 1,420,000 | 62,300 | 50,100 | 111,000,000 |
| Medium carbon, 2%–4% C, South Africa | 18 | 17 | 48,500 | 342 | 301 | 842,000 |
| High carbon: | | | | | | |
| Australia | -- | -- | -- | 9,030 | 6,990 | 8,950,000 |
| Bahrain | -- | -- | -- | 180 | 142 | 205,000 |
| France | -- | -- | -- | 2,600 | 1,770 | 3,110,000 |
| Korea, Republic of | -- | -- | -- | 1,430 | 1,070 | 1,620,000 |
| Norway | -- | -- | -- | 6,420 | 5,030 | 7,030,000 |
| South Africa | 33,000 | 25,700 | 38,900,000 | 156,000 | 120,000 | 177,000,000 |
| Sweden | -- | -- | -- | 100 | 67 | 176,000 |
| Ukraine | 2,390 | 1,880 | 2,620,000 | 26,100 | 20,300 | 28,900,000 |
| Total | 35,400 | 27,600 | 41,500,000 | 202,000 | 156,000 | 227,000,000 |
| Grand total | 36,500 | 28,500 | 43,900,000 | 292,000 | 229,000 | 405,000,000 |

-- Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN SEPTEMBER 2011^{1,2}

(Metric tons)

| Source | Gross weight | Mn content | Customs value ³ | January–September | | |
|--|--------------|------------|----------------------------|-------------------|------------|----------------------------|
| | | | | Gross weight | Mn content | Customs value ³ |
| More than 20%, but less than 47% manganese: | | | | | | |
| Australia | 66,000 | 25,500 | \$12,600,000 | 82,200 | 32,300 | \$15,700,000 |
| Brazil | -- | -- | -- | 3,220 | 1,480 | 1,150,000 |
| Gabon | 3,300 | 1,470 | 531,000 | 17,900 | 7,950 | 3,070,000 |
| Mexico | -- | -- | -- | 2,980 | 1,080 | 701,000 |
| Netherlands | -- | -- | -- | 86 | 18 | 17,200 |
| South Africa | -- | -- | -- | 13,000 | 5,520 | 6,680,000 |
| Turkey | 18 | 8 | 8,500 | 566 | 199 | 190,000 |
| Total | 69,300 | 27,000 | 13,100,000 | 120,000 | 48,500 | 27,500,000 |
| 47% or more manganese: | | | | | | |
| Australia | -- | -- | -- | 78,600 | 38,300 | 18,800,000 |
| Brazil | -- | -- | -- | 3,100 | 1,590 | 1,050,000 |
| Gabon | 21,100 | 10,700 | 6,210,000 | 221,000 | 114,000 | 66,200,000 |
| Morocco | 39 | 21 | 35,300 | 863 | 417 | 282,000 |
| Netherlands | -- | -- | -- | 446 | 223 | 26,700 |
| South Africa | -- | -- | -- | 20 | 10 | 12,800 |
| Total | 21,100 | 10,700 | 6,250,000 | 303,000 | 154,000 | 86,400,000 |
| Grand total | 90,500 | 37,700 | 19,400,000 | 423,000 | 203,000 | 114,000,000 |

-- Zero.

¹Quantities for general imports and imports for consumption are identical.

²Data rounded to no more than three significant digits; may not add to totals shown.

³Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN SEPTEMBER 2011¹

(Metric tons, gross weight)

| Source | Quantity | Customs value ² | January–September | |
|--------------|----------|----------------------------|-------------------|----------------------------|
| | | | Quantity | Customs value ² |
| Belgium | -- | -- | 466 | \$528,000 |
| Brazil | 19 | \$22,200 | 73 | 82,400 |
| Colombia | -- | -- | 600 | 1,150,000 |
| Germany | 16 | 26,800 | 45 | 75,800 |
| India | 20 | 19,000 | 20 | 25,000 |
| Japan | 350 | 883,000 | 6,660 | 15,400,000 |
| Mexico | 120 | 111,000 | 735 | 683,000 |
| Netherlands | -- | -- | 101 | 61,500 |
| Singapore | 11 | 19,400 | 125 | 174,000 |
| South Africa | 1,300 | 3,240,000 | 10,500 | 29,500,000 |
| Turkey | -- | -- | 71 | 38,500 |
| Total | 1,830 | 4,320,000 | 19,400 | 47,700,000 |

-- Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN SEPTEMBER 2011¹

(Metric tons)

| Source | Gross weight | Customs value ² | January–September | |
|----------------------------------|--------------|----------------------------|-------------------|----------------------------|
| | | | Gross weight | Customs value ² |
| Unwrought flake: | | | | |
| China | 1,340 | \$3,830,000 | 9,990 | \$29,000,000 |
| Japan | -- | -- | 20 | 33,000 |
| Mexico | -- | -- | 91 | 395,000 |
| South Africa | 210 | 848,000 | 1,240 | 4,970,000 |
| Vietnam | 88 | 278,000 | 88 | 278,000 |
| Total | 1,640 | 4,960,000 | 11,400 | 34,600,000 |
| Unwrought powder: | | | | |
| China | 100 | 314,000 | 221 | 722,000 |
| Mexico | 13 | 58,100 | 64 | 287,000 |
| South Africa | 238 | 941,000 | 2,570 | 9,970,000 |
| United Kingdom | -- | -- | 1 | 2,210 |
| Total | 351 | 1,310,000 | 2,860 | 11,000,000 |
| Unwrought, other: | | | | |
| China | 533 | 1,750,000 | 11,300 | 36,200,000 |
| Germany | 19 | 68,100 | 233 | 867,000 |
| Korea, Republic of | -- | -- | 1 | 8,220 |
| Netherlands | -- | -- | 10 | 71,200 |
| Poland | (3) | 4,320 | (3) | 7,330 |
| South Africa | 76 | 301,000 | 857 | 3,190,000 |
| Spain | -- | -- | 112 | 453,000 |
| Total | 628 | 2,120,000 | 12,500 | 40,800,000 |
| Other manganese, wrought: | | | | |
| China | -- | -- | 150 | 500,000 |
| Germany | -- | -- | 4 | 68,900 |
| Japan | -- | -- | (3) | 3,460 |
| Mexico | -- | -- | 26 | 109,000 |
| United Kingdom | -- | -- | (3) | 5,860 |
| Vietnam | -- | -- | 168 | 548,000 |
| Total | -- | -- | 348 | 1,230,000 |
| Grand total | 2,620 | 8,390,000 | 27,100 | 87,600,000 |

-- Zero.

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

²Customs value generally represent a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

³Less than ½ unit.

Note: There were no imports for consumption of metallic waste and scrap in September 2011; the year-to-date total remains at 456 metric tons.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,
AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN SEPTEMBER 2011¹

(Metric tons, gross weight)

| Country | Manganese ore | | Ferromanganese, | | | | Silicomanganese | | Manganese metal ² | |
|----------------------|---------------|-----------|-----------------|-----------|----------------|-----------|-----------------|-----------|------------------------------|-----------|
| | September | January– | 2% or less C | | More than 2% C | | September | January– | September | January– |
| | | September | September | September | September | September | | September | | September |
| Australia | -- | -- | -- | -- | -- | 53 | -- | -- | -- | 3 |
| Bahamas, The | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1 |
| Bahrain | -- | 66 | -- | -- | -- | -- | -- | -- | -- | -- |
| Belgium | -- | 18 | 69 | 357 | -- | -- | -- | -- | -- | -- |
| Brazil | -- | -- | -- | -- | 7 | 135 | -- | -- | -- | -- |
| Canada | -- | 289 | 16 | 432 | 117 | 1,200 | 188 | 5,510 | 4 | 562 |
| China | -- | 91 | -- | -- | -- | -- | -- | -- | 139 | 1,020 |
| Colombia | -- | -- | -- | -- | -- | -- | -- | 352 | -- | 1 |
| Costa Rica | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 12 |
| Dominican Republic | -- | -- | -- | -- | -- | (3) | -- | -- | 98 | 98 |
| Egypt | -- | -- | 8 | 8 | -- | -- | -- | -- | -- | -- |
| France | -- | -- | -- | -- | -- | 27 | -- | -- | -- | 1 |
| Germany | -- | 10 | -- | -- | -- | 34 | -- | -- | -- | 22 |
| Guatemala | -- | -- | 9 | 9 | -- | -- | -- | -- | -- | -- |
| Guyana | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3 |
| Hong Kong | -- | 90 | -- | -- | -- | -- | -- | -- | -- | 11 |
| India | -- | (3) | -- | -- | -- | -- | -- | -- | 52 | 164 |
| Ireland | -- | -- | -- | -- | -- | 4 | -- | -- | -- | -- |
| Italy | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7 |
| Japan | -- | -- | -- | -- | -- | -- | -- | -- | -- | 345 |
| Korea, Republic of | -- | 306 | -- | -- | -- | -- | -- | -- | 4 | 4 |
| Malaysia | -- | -- | -- | -- | 2 | 6 | -- | -- | -- | -- |
| Mexico | -- | 42 | -- | 1,250 | -- | -- | -- | 455 | -- | 44 |
| Norway | -- | -- | -- | -- | -- | 14 | -- | -- | -- | -- |
| Peru | -- | -- | -- | -- | -- | 100 | -- | -- | -- | -- |
| Philippines | -- | -- | -- | -- | -- | -- | -- | 7 | -- | -- |
| Romania | -- | -- | -- | -- | -- | 33 | -- | -- | -- | -- |
| Saint Lucia | -- | -- | -- | -- | -- | -- | -- | -- | -- | 15 |
| Singapore | -- | -- | -- | -- | 3 | 36 | -- | -- | -- | -- |
| Spain | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 |
| Taiwan | -- | -- | -- | -- | -- | -- | -- | -- | -- | 250 |
| United Arab Emirates | -- | -- | -- | -- | 4 | 4 | -- | -- | -- | -- |
| United Kingdom | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 |
| Venezuela | -- | -- | -- | -- | -- | 4 | -- | -- | -- | -- |
| Vietnam | -- | -- | -- | -- | -- | -- | -- | -- | -- | 19 |
| Total | -- | 913 | 102 | 2,060 | 133 | 1,650 | 188 | 6,330 | 302 | 2,600 |

-- Zero.

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

²Includes manganese-aluminum, other alloys, and waste and scrap.

³Less than ½ unit.

TABLE 8
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN SEPTEMBER 2011, BY CLASS¹

| Class | Gross weight (metric tons) | Value ² (thousands) | Principal sources and destinations: gross weight (metric tons); value ² (thousands) | January–September | | |
|---|-------------------------------|-----------------------------------|---|-------------------------------|-----------------------------------|---|
| | | | | Gross weight (metric tons) | Value ² (thousands) | Principal sources and destinations: gross weight (metric tons); value ² (thousands) |
| Imports for consumption: | | | | | | |
| Manganese oxides other than dioxide | 149 | \$107 | Korea, Republic of 100; \$77 | 2,380 | \$2,450 | South Africa 638; \$620 |
| Manganites, manganates, and other permanganates | -- | -- | -- | 17 | 65 | Germany 17; \$65 |
| Potassium permanganate | 164 | 490 | India 144; \$437 | 1,160 | 3,540 | India 1,100; \$3,330 |
| Sodium permanganate | 20 | 48 | China 20; \$48 | 405 | 1,000 | China 400; \$978 |
| Sulfates, basket category, including manganese sulfate | 5,390 | 4,760 | Hong Kong 2,000; \$891 | 32,700 | 31,500 | Mexico 14,000; \$11,700 |
| Exports: | | | | | | |
| Manganese dioxide | 1,230 | 2,130 | Canada 642; \$498 | 7,370 | 13,000 | Canada 3,750; \$3,520 |
| Manganese oxides other than dioxide | 738 | 1,490 | Canada 177; \$256 | 5,650 | 11,600 | Canada 1,390; \$1,680 |
| Manganites, manganates, and other permanganates | 6 | 15 | Canada 6; \$15 | 107 | 457 | Canada 82; \$221 |
| Potassium permanganate | 253 | 752 | Belgium 181; \$470 | 2,520 | 7,270 | Belgium 1,800; \$4,580 |
| Sodium permanganate | 49 | 77 | Belgium 37; \$44 | 742 | 1,730 | Belgium 281; \$479 |
| Sulfates, basket category, including manganese sulfate | 1,400 | 1,170 | Canada 992; \$596 | 12,300 | 11,200 | Canada 9,130; \$4,950 |

-- Zero.

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

²For imports, Customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.