

Mineral Industry Surveys

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CHROMIUM IN JULY 2023

Stainless steel production decreased by 6% in July 2023 compared with production in June 2023 and decreased by 13% compared with production in July 2022 (table 1). The leading import sources for ferrochromium in July 2023 into the United States were, in descending order of quantity by gross weight and chromium content, South Africa, India, and Kazakhstan (table 4), whereas the leading import sources for chromium metal were the United Kingdom, France, and China (table 5).

Imports of chromite ore, chromium ferroalloys, stainless steel, and stainless-steel scrap commonly fluctuate from month to month (fig. 1, table 1). Imports of chromite ore increased by 41% in July 2023 compared with imports in June 2023 and decreased by 51% compared with imports in July 2022. Imports of all grades of chromium ferroalloys, including ferrochromium silicon, increased by 33% compared with

imports in June 2023 and decreased by 36% compared with imports in July 2022 (table 3). However, there have been no imports of medium-carbon ferrochromium since April 2023. Stainless steel imports in July 2023 increased by 11% compared with imports in June 2023 and decreased by 20% compared with imports in July 2022. Stainless steel scrap imports in July 2023 decreased by 22% compared with imports in June 2023 and were 35% less than those in July 2022 (table 1).

The U.S. chromium metal (99% chromium) average price was \$5.32 per pound in July 2023, 3% less than the average price in June 2023 and 34% less than the average price in July 2022. The U.S. high-carbon ferrochromium (62%–70% chromium) average price was 231.25 cents per pound of contained chromium in July 2023, 9% less than the average

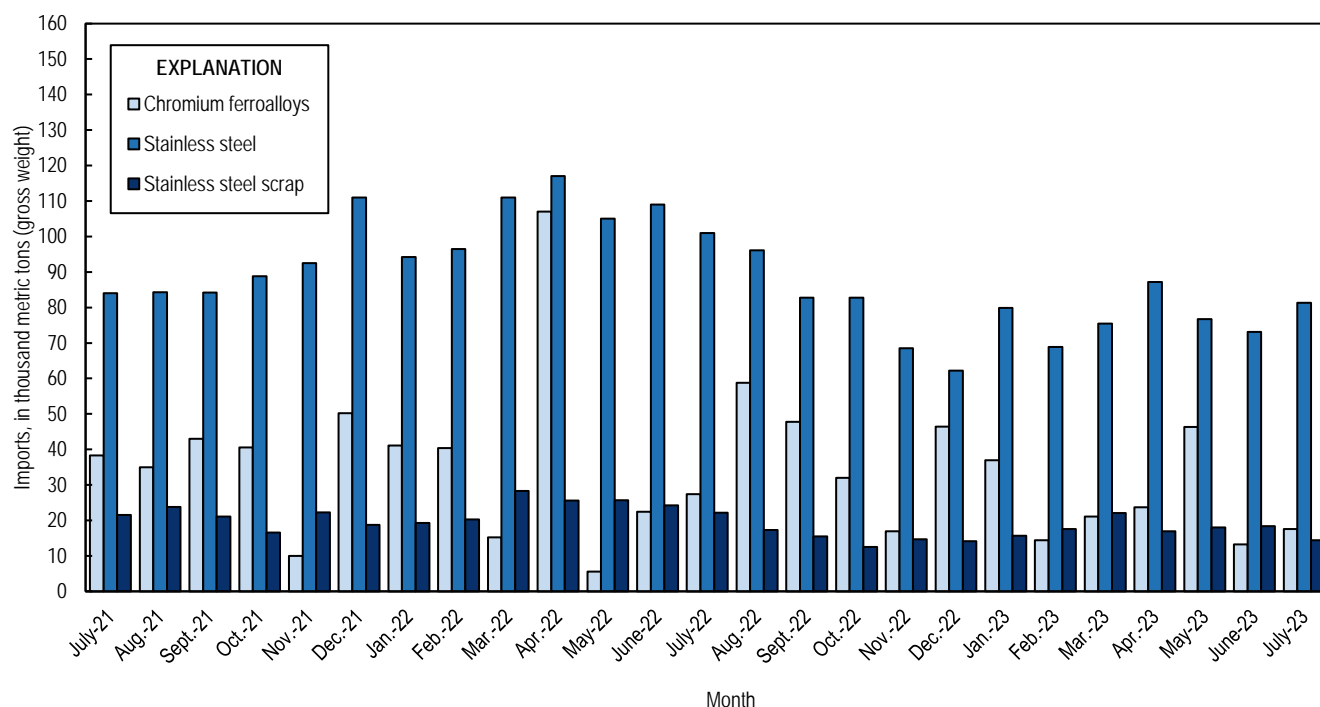


Figure 1. Chromium ferroalloys, stainless steel, and stainless steel scrap imports from July 2021 through July 2023. Source: U.S. Census Bureau.

price in June 2023 and 38% less than the average price in July 2022 (fig. 2) (CRU Group, 2023).

Reference Cited

CRU Group, 2023, CRU prices: CRU Group, August 1. (Accessed September 13, 2023, via <http://www.crugroup.com/>.)

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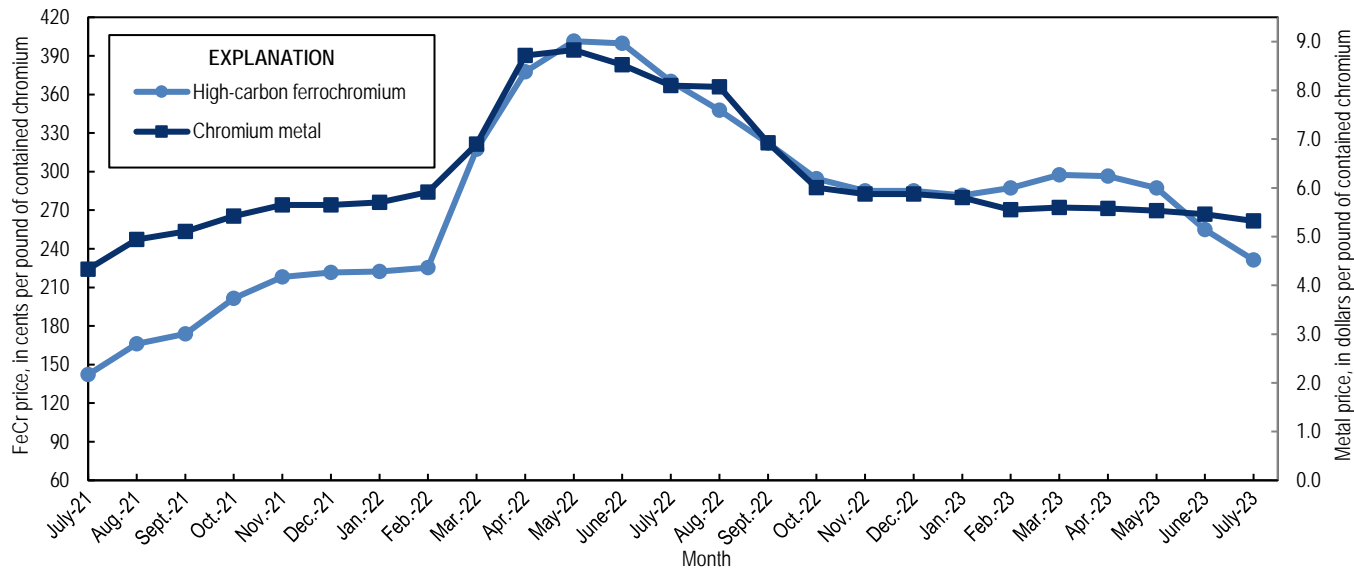


Figure 2. Average monthly prices for U.S. high-carbon ferrochromium (FeCr) and chromium metal from July 2021 through July 2023. Source: CRU Group.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2022	2023			
	January– December	May	June	July	January– July
Production, stainless steel ²	2,020,000	155,000	158,000	149,000	1,090,000
Components of U.S. supply:					
Stainless steel scrap receipts ^e	537,000	37,400	38,300	36,100	264,000
Stainless steel scrap consumption ^e	806,000	55,400	56,700	53,500	391,000
Imports for consumption:					
Chromite ore	121,000	3,150	1,300	1,830	64,900
Ferrochromium:					
More than 4% carbon	399,000	41,200	10,300	14,500	151,000
More than 3% but not more than 4% carbon	36	--	--	--	20
More than 0.5% but not more than 3% carbon	2,250	243	150	200	1,630
Not more than 0.5% carbon	42,100	3,950	2,720	2,860	18,900
Ferrochromium silicon	17,100	921	--	--	1,350
Total ferroalloy imports	461,000	46,300	13,200	17,600	173,000
Chromium metal ³	14,900	760	1,180	1,120	7,290
Stainless steel	1,130,000	76,700	73,100	81,300	543,000
Stainless steel scrap	240,000	18,000	18,400	14,400	123,000
Exports:					
Chromite ore	2,220	255	167	230	1,270
Chromium ferroalloys:					
High-carbon ferrochromium	3,640	926	413	25	3,380
Low-carbon ferrochromium	637	63	9	63	327
Ferrochromium silicon	40	--	42	1	62
Total ferroalloy exports	4,310	989	463	89	3,760
Chromium metal	567	49	78	16	247
Stainless steel	350,000	32,300	28,000	26,100	206,000
Stainless steel scrap	403,000	111,000	27,100	39,200	307,000

^eEstimated. -- Zero.

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

²Source: American Iron and Steel Institute.

³Includes waste and scrap and other.

TABLE 2
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND METAL¹

	Chromite ore		Chromium ferroalloys ²			Chromium metal ³	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
2022:							
July	212	\$97	316	190	\$344	25	\$803
August	194	128	163	47	164	32	937
September	346	194	823	494	729	73	1,620
October	180	157	5	3	11	17	528
November	64	54	36	22	32	22	730
December	180	151	896	432	841	83	1,530
January–December ⁴	2,220	1,640	4,310	2,170	4,420	567	12,800
2023:							
January	124	110	1,020	398	1,130	43	1,120
February	158	145	418	141	446	20	675
March	129	121	505	117	455	26	846
April	203	173	279	64	311	16	488
May	255	223	989	373	896	49	1,830
June	167	145	463	104	424	78	2,360
July	230	178	89	37	113	16	589
January–July ⁴	1,270	1,090	3,760	1,230	3,780	247	7,910

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

²Includes low- and high-carbon ferrochromium and ferrochromium silicon.

³Includes chromium metal, waste and scrap, and unwrought powders.

⁴May include revised data that are not broken out by specific month(s).

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND
CHROMIUM METAL¹

(Metric tons)

	2022	2023		
	January– December	June	July	January– July ²
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	5,750	335	257	2,940
Chromic oxide content	1,750	131	101	824
More than 40% but less than 46% chromic oxide:				
Gross weight	17,100	954	1,280	12,000
Chromic oxide content	7,400	410	553	5,220
46% or more chromic oxide:				
Gross weight	98,200	14	293	49,900
Chromic oxide content	83,300	7	178	43,600
Total, all grades:				
Gross weight	121,000	1,300	1,830	64,900
Chromic oxide content	92,500	548	832	49,600
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	42,100	2,720	2,860	18,900
Chromium content	29,500	1,920	2,040	13,100
More than 0.5% but not more than 3% carbon:				
Gross weight	2,250	150	200	1,630
Chromium content	1,520	93	123	1,080
Total, low-carbon:				
Gross weight	44,300	2,870	3,060	20,500
Chromium content	31,000	2,020	2,160	14,200
Medium-carbon: ⁴				
Gross weight	36	--	--	20
Chromium content	25	--	--	14
High-carbon: ⁵				
Gross weight	399,000	10,300	14,500	151,000
Chromium content	224,000	5,830	7,680	82,900
Total, all grades:				
Gross weight	444,000	13,200	17,600	172,000
Chromium content	256,000	7,850	9,840	97,100
Chromium metal:				
Unwrought powders	13,500	1,040	782	6,210
Waste and scrap	519	46	47	254
Other than waste and scrap and unwrought powders	927	94	288	829
Total, all grades	14,900	1,180	1,120	7,290

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Ferrochromium containing not more than 3% carbon.

⁴Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁵Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2023, BY GRADE AND COUNTRY OR LOCALITY¹

Grade and country or locality	July			January–July ²		
	Gross weight (metric tons)	Chromium content (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value ³ (thousands)
High-carbon ferrochromium: ⁴						
Albania	184	119	\$444	987	659	\$2,740
Brazil	800	444	776	800	444	776
China	--	--	--	27	19	81
Finland	--	--	--	12,000	6,330	15,000
India	972	619	1,780	6,860	4,320	12,200
Kazakhstan	805	548	2,590	24,500	16,800	98,400
Oman	162	97	228	189	112	293
South Africa	10,600	5,200	12,400	79,000	38,700	88,400
Sweden	970	652	3,570	3,780	2,520	13,400
Switzerland	--	--	--	253	170	866
Turkey	--	--	--	1,010	651	3,400
Zimbabwe	--	--	--	21,900	12,200	30,100
Total	14,500	7,680	21,800	151,000	82,900	266,000
Medium-carbon ferrochromium, India ⁵	--	--	--	20	14	107
Low-carbon ferrochromium: ⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	200	123	598	750	468	2,400
China	--	--	--	25	16	105
Kazakhstan	--	--	--	856	599	5,860
Total	200	123	598	1,630	1,080	8,360
Not more than 0.5% carbon:						
Brazil	--	--	--	814	485	1,570
China	65	43	235	235	164	922
Germany	667	460	3,640	7,110	4,880	39,500
India	1,050	773	3,940	3,890	2,740	15,600
Japan	166	114	1,430	1,230	840	10,600
Kazakhstan	655	466	3,860	4,600	3,280	30,700
Russia	--	--	--	80	59	555
Turkey	262	183	1,360	937	651	5,810
United Kingdom	1	1	16	1	1	23
Total	2,860	2,040	14,500	18,900	13,100	105,000
All grades:						
Albania	184	119	444	987	659	2,740
Brazil	1,000	567	1,370	2,360	1,400	4,740
China	65	43	235	287	199	1,110
Finland	--	--	--	12,000	6,330	15,000
Germany	667	460	3,640	7,110	4,880	39,500
India	2,020	1,390	5,720	10,800	7,070	27,900
Japan	166	114	1,430	1,230	840	10,600
Kazakhstan	1,460	1,010	6,460	30,000	20,700	135,000
Oman	162	97	228	189	112	293
Russia	--	--	--	80	59	555
South Africa	10,600	5,200	12,400	79,000	38,700	88,400
Sweden	970	652	3,570	3,780	2,520	13,400
Switzerland	--	--	--	253	170	866
Turkey	262	183	1,360	1,950	1,300	9,220
United Kingdom	1	1	16	1	1	23
Zimbabwe	--	--	--	21,900	12,200	30,100
Total	17,600	9,840	36,900	172,000	97,100	379,000

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import 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 merchandise into the United States.

⁴Ferrochromium containing more than 4% carbon.

⁵Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁶Ferrochromium containing not more than 3% carbon.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2023,
BY GRADE AND BY COUNTRY OR LOCALITY¹

Grade and country or locality	July		January–July ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	276	\$2,770	3,110	\$30,600
France	--	--	272	4,470
Germany	--	--	100	852
India	--	--	59	742
Japan	--	--	(4)	5
Korea, Republic of	--	--	16	253
Russia	6	90	331	3,540
United Kingdom	500	8,030	2,320	37,400
Total	782	10,900	6,210	77,900
Waste and scrap:				
Canada	4	23	76	504
China	3	18	12	323
Germany	(4)	10	(4)	13
Japan	--	--	25	229
Korea, Republic of	--	--	(4)	5
United Kingdom	40	315	140	1,150
Total	47	366	254	2,220
Other than waste and scrap and unwrought powders:				
Canada	--	--	(4)	221
China	1	149	8	679
France	286	3,460	664	10,500
Germany	(4)	54	17	1,290
Japan	(4)	8	4	120
Korea, Republic of	(4)	17	(4)	33
Malaysia	(4)	4	(4)	8
Russia	--	--	80	671
South Africa	--	--	21	199
Taiwan	(4)	4	(4)	28
United Kingdom	--	--	35	611
Total	288	3,690	829	14,300
All grades:				
Canada	4	23	76	725
China	281	2,940	3,130	31,600
France	286	3,460	937	14,900
Germany	1	64	116	2,160
India	--	--	59	742
Japan	(4)	8	29	354
Korea, Republic of	(4)	17	16	291
Malaysia	(4)	4	(4)	8
Russia	6	90	411	4,210
South Africa	--	--	21	199
Taiwan	(4)	4	(4)	28
United Kingdom	540	8,340	2,490	39,200
Total	1,120	14,900	7,290	94,500

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import 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 merchandise into the United States.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2023¹

Stainless steel product	July		January–July ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	779	\$6,710	6,890	\$48,900
Flat-rolled (width > 600 mm)	14,600	61,700	110,000	474,000
Flat-rolled (width < 600 mm)	3,990	37,900	35,500	336,000
Bars and rods in irregular coils	294	2,960	1,510	11,000
Other bars and rods	2,640	38,300	21,500	293,000
Wire	559	13,400	4,370	94,200
Tubes, pipes, hollow profiles	3,280	37,100	26,600	286,000
Total	26,100	198,000	206,000	1,540,000
Stainless steel scrap	39,200	37,300	307,000	259,000
Grand total	65,300	235,000	513,000	1,800,000
Imports:				
Ingot	13,200	39,800	101,000	299,000
Flat-rolled (width > 600 mm)	28,300	100,000	186,000	685,000
Flat-rolled (width < 600 mm)	3,950	19,900	32,700	162,000
Bars and rods in irregular coils	2,190	11,400	21,400	106,000
Other bars and rods	15,800	98,200	87,400	536,000
Wire	3,370	20,300	23,000	142,000
Tubes, pipes, hollow profiles	14,600	120,000	92,000	758,000
Total	81,300	409,000	543,000	2,690,000
Stainless steel scrap	14,400	16,400	123,000	146,000
Grand total	95,700	426,000	666,000	2,830,000

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

²May include revised data that are not broken out by specific month(s).

³Export value is free alongside ship. Import value is Customs import value, which generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.