

Mineral Industry Surveys

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CHROMIUM IN JULY 2022

Stainless steel production decreased slightly in July 2022 compared with production in June 2022 and decreased by 9% compared with production in July 2021 (table 1). Government stockpile inventories for chromium metal were unchanged compared with those in June but decreased by 6% compared with July 2021. Government stockpile inventories for high-carbon ferrochromium decreased by 5% but low-carbon ferrochromium inventories were unchanged compared with those in those in June. Inventories for high-carbon ferrochromium and low-carbon ferrochromium decreased by 36% and by 3%, respectively, compared with inventories in July 2021 (table 2).

In July 2022, the leading import sources for ferrochromium into the United States were, in descending order of quantity by gross weight, Kazakhstan, Finland, and China (table 5),

whereas the leading import sources for chromium metal were the United Kingdom, China, and France (table 6).

Imports of chromite ore, chromium ferroalloys, stainless steel, and stainless steel scrap commonly fluctuate from month to month (fig. 1, table 1). In July 2022, imports of chromite ore increased by 12% compared with imports in June and increased by 10% compared with imports in July 2021. Imports of all grades of chromium ferroalloys, including ferrochromium silicon, increased by 22% compared with imports in June but decreased by 28% compared with imports in July 2021. Stainless steel imports in July 2022 decreased by 8% compared with imports in June and decreased by 32% compared with those in July 2021. Stainless steel scrap imports in July 2022 were 8% less than imports in June but 5% more than those in July 2021 (table 1).

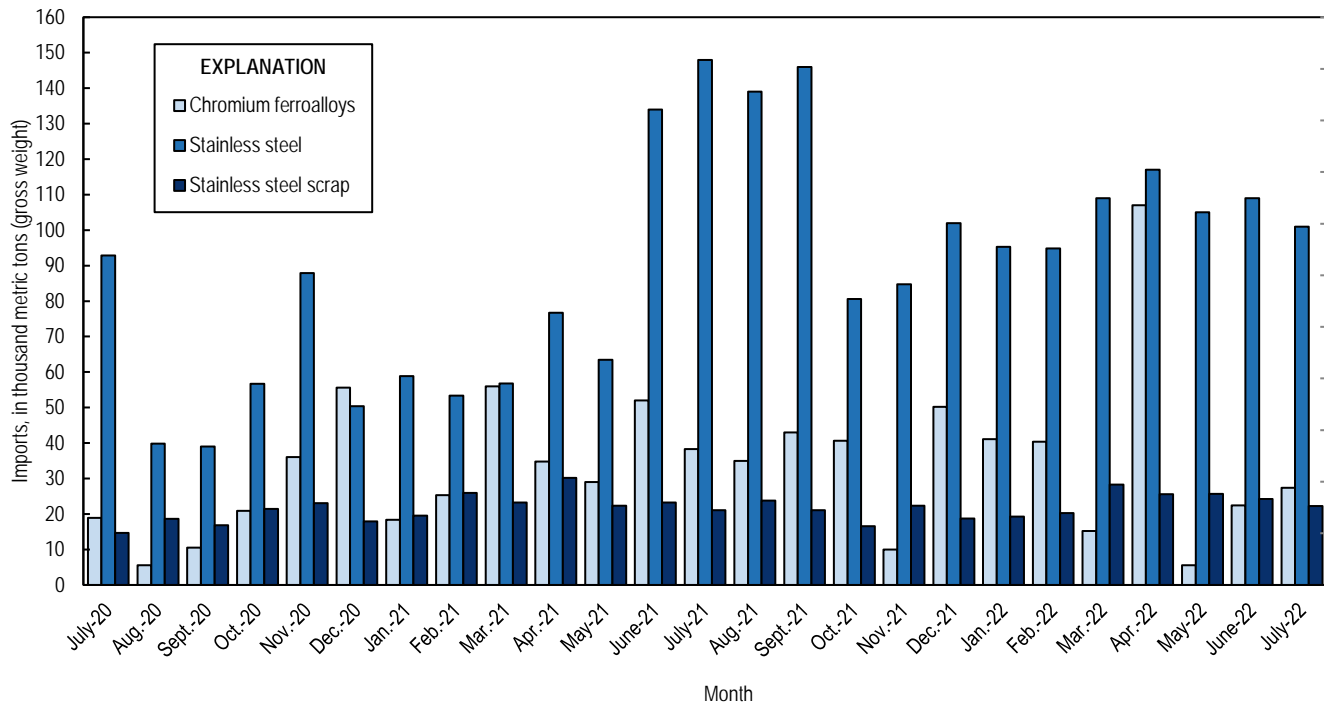


Figure 1. Chromium ferroalloys, stainless steel, and stainless steel scrap imports from July 2020 through July 2022. Source: U.S. Census Bureau.

The U.S. chromium metal (99% chromium) average price was \$8.10 per pound in July 2022, a 5% decrease from the average price in June, but 87% more than the average price in July 2021. The U.S. high-carbon ferrochromium (62%–70% chromium) average price was 370.00 cents per pound of contained chromium in July 2022, a 7% decrease from the average price in June 2022, but more than double the average price in July 2021 (fig. 2) (CRU Group, 2022).

Reference Cited

CRU Group, 2022, CRU prices: CRU Group, August 1. (Accessed August 29, 2022, via <http://www.crugroup.com/>.)

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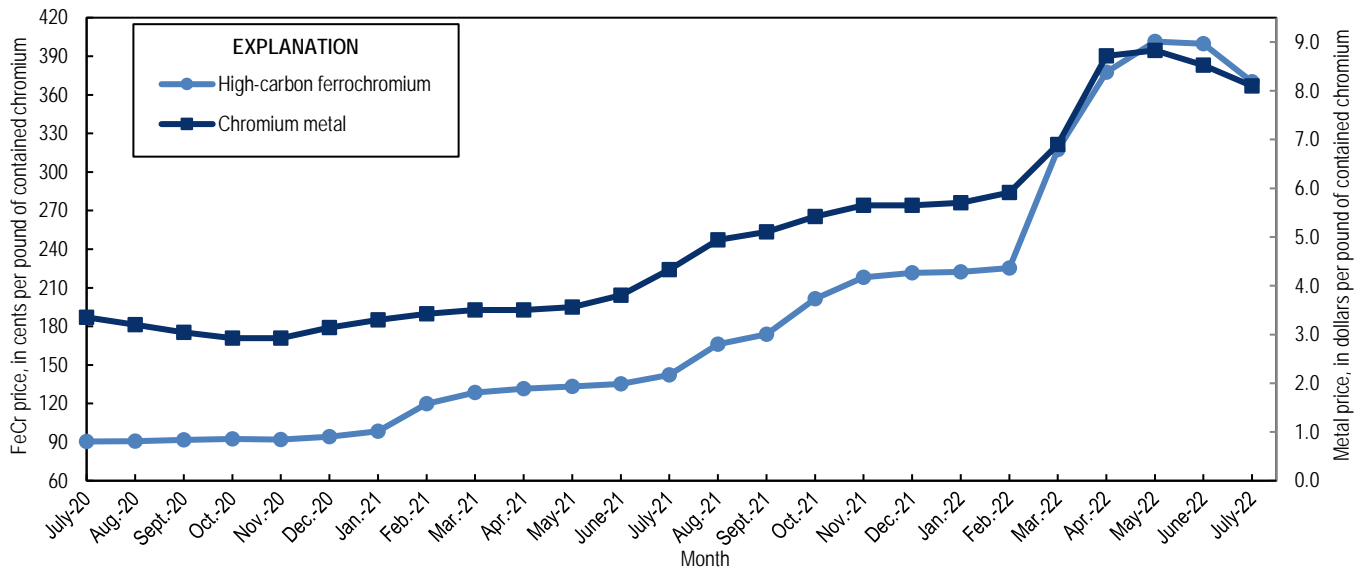


Figure 2. Average monthly prices for U.S. high-carbon ferrochromium (FeCr) and chromium metal from July 2020 through July 2022. Source: CRU Group.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2021	2022			
	January– December	May	June	July	January– July ²
Production, stainless steel ³	2,370,000	161,000	176,000	173,000	1,260,000
Components of U.S. supply:					
Stainless steel scrap receipts	672,000	46,600	47,600 ^r	44,300	349,000 ^e
Stainless steel scrap consumption	1,010,000	73,100	83,900	79,000	553,000 ^e
Imports for consumption:					
Chromite ore	146,000	675	3,380	3,770	56,300
Ferrochromium:					
More than 4% carbon	347,000	2,430	17,000	18,800	216,000
More than 3% but not more than 4% carbon	6,700	16	--	--	16
More than 0.5% but not more than 3% carbon	1,810	--	306	452	1,040
Not more than 0.5% carbon	57,700	1,680	5,020	5,850	28,300
Ferrochromium silicon	19,800	1,440	110	2,360	13,000
Total ferroalloy imports	433,000	5,570	22,400	27,400	259,000
Chromium metal ⁴	12,100	1,840	1,660	1,270	9,660
Stainless steel	1,140,000	105,000	109,000	101,000	732,000
Stainless steel scrap	268,000	25,700	24,200	22,200	166,000
Exports:					
Chromite ore	2,110	96	161	212	1,250
Chromium ferroalloys:					
High-carbon ferrochromium	1,690	366	453	314	1,770
Low-carbon ferrochromium	1,580	22	259	2	585
Ferrochromium silicon	134	--	--	--	40
Total ferroalloy exports	3,410	387	712	316	2,390
Chromium metal	456	68	34	25	340
Stainless steel	355,000	31,400	29,200	28,600	208,000
Stainless steel scrap	293,000	59,200	16,300	101,000	253,000
Government stockpile:					
Chromium ferroalloys ⁵	49,900	46,000	45,100	44,200	44,200
Chromium metal	3,560	3,520	3,480	3,480	3,480

^eEstimated. ^rRevised. -- 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).

³Data on stainless steel production reported by American Iron and Steel Institute; monthly, quarterly, and year-to-date production of stainless and heat-resisting raw steel.

⁴Includes waste and scrap and other.

⁵Includes high- and low-carbon ferrochromium.

TABLE 2
U.S. GOVERNMENT STOCKPILE INVENTORY OF
CHROMIUM MATERIALS¹

(Metric tons)

	Chromium ferroalloys		Chromium metal
	High-carbon ferro- chromium	Low-carbon ferro- chromium	
2021:			
July	27,300	27,500	3,690
August	26,200	27,500	3,620
September	25,600	27,400	3,620
October	25,600	27,400	3,620
November	24,700	27,200	3,560
December	22,900	27,000	3,560
2022:			
January	22,000	27,000	3,560
February	22,000	27,000	3,560
March	20,700	26,800	3,520
April	19,600	26,800	3,520
May	19,200	26,800	3,520
June	18,300	26,800	3,480
July	17,400	26,800	3,480

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

Source: Defense Logistics Agency, DLA Strategic Materials.

TABLE 3
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)
2021:							
July	156	\$104	274	147	\$529	15	\$406
August	116	81	435	212	600	47	1,000
September	302	191	354	167	484	25	773
October	142	95	752	403	2,260	21	584
November	219	135	465	254	947	21	418
December	50	37	558	179	676	29	924
January–December ⁴	2,110	1,430	3,410	1,670	6,510	456	9,660
2022:							
January	90	88	321	124	414	63	1,030
February	170	144	252	52	259	39	1,080
March	262	206	157	44	172	66	1,360
April	255	227	245	129	282	45	867
May	96	77	387	208	390	68	1,410
June	161	110	712	425	783	34	899
July	212	97	316	190	344	25	803
January–July ⁴	1,250	948	2,390	1,170	2,640	340	7,450

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 4
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND
CHROMIUM METAL¹

(Metric tons)

	2021	2022		
	January– December	June	July	January– July ²
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	15,800	53	267	2,300
Chromic oxide content	3,490	20	105	785
More than 40% but less than 46% chromic oxide:				
Gross weight	21,400	1,670	1,960	6,560
Chromic oxide content	9,270	722	870	2,860
46% or more chromic oxide:				
Gross weight	108,000	1,650	1,540	47,400
Chromic oxide content	94,300	790	726	40,200
Total, all grades:				
Gross weight	146,000	3,380	3,770	56,300
Chromic oxide content	107,000	1,530	1,700	43,800
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	57,700	5,020	5,850	28,300
Chromium content	40,400	3,530	4,160	19,800
More than 0.5% but not more than 3% carbon:				
Gross weight	1,810	306	452	1,040
Chromium content	1,250	200	305	697
Total, low-carbon:				
Gross weight	59,500	5,320	6,300	29,400
Chromium content	41,600	3,730	4,470	20,500
Medium-carbon: ⁴				
Gross weight	6,700	--	--	16
Chromium content	3,420	--	--	11
High-carbon: ⁵				
Gross weight	347,000	17,000	18,800	216,000
Chromium content	191,000	10,400	11,500	123,000
Total, all grades:				
Gross weight	413,000	22,300	25,100	246,000
Chromium content	236,000	14,100	16,000	144,000
Chromium metal:				
Unwrought powders	10,300	1,510	1,180	8,500
Waste and scrap	112	107	86	328
Other than waste and scrap and unwrought powders	1,710	42	2	835
Total, all grades	12,100	1,660	1,270	9,660

-- 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 5
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2022, 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	617	404	\$1,950	8,710	5,900	\$27,900
Finland	6,500	3,420	10,200	15,100	8,060	22,700
India	49	32	97	853	530	1,740
Kazakhstan	9,190	6,280	52,600	44,600	30,600	187,000
Russia	--	--	--	20,500	12,600	40,800
South Africa	1,600	816	1,280	95,000	46,500	131,000
Sweden	110	75	123	3,280	2,220	8,880
Turkey	709	455	3,140	14,300	9,230	47,800
Zimbabwe	--	--	--	13,900	7,610	16,600
Total	18,800	11,500	69,400	216,000	123,000	484,000
Medium-carbon ferrochromium, Kazakhstan⁵						
	--	--	--	16	11	90
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon						
Brazil	153	95	758	342	211	1,650
Kazakhstan	299	210	2,960	696	485	4,130
Total	452	305	3,720	1,040	697	5,780
Not more than 0.5% carbon:						
Belgium	20	14	63	60	42	190
Brazil	550	340	2,700	1,030	645	4,540
China	1,660	1,240	7,030	2,260	1,700	9,660
Germany	946	667	3,810	5,180	3,660	17,300
India	200	124	863	300	187	1,240
Japan	338	241	2,220	1,260	889	6,570
Kazakhstan	2,020	1,450	20,200	7,380	5,330	59,200
Russia	24	17	97	10,600	7,160	61,300
Sweden	--	--	--	14	10	59
Turkey	89	63	385	227	160	1,170
Total	5,850	4,160	37,400	28,300	19,800	161,000
All grades:						
Albania	617	404	1,950	8,710	5,900	27,900
Belgium	20	14	63	60	42	190
Brazil	703	436	3,460	1,370	856	6,190
China	1,660	1,240	7,030	2,260	1,700	9,660
Finland	6,500	3,420	10,200	15,100	8,060	22,700
Germany	946	667	3,810	5,180	3,660	17,300
India	249	156	959	1,150	717	2,980
Japan	338	241	2,220	1,260	889	6,570
Kazakhstan	11,500	7,940	75,800	52,700	36,400	250,000
Russia	24	17	97	31,100	19,800	102,000
South Africa	1,600	816	1,280	95,000	46,500	131,000
Sweden	110	75	123	3,290	2,230	8,940
Turkey	798	518	3,520	14,500	9,390	49,000
Zimbabwe	--	--	--	13,900	7,610	16,600
Total	25,100	16,000	110,000	246,000	144,000	651,000

-- 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 6
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2022,
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:				
Australia	(4)	\$4	(4)	\$4
China	406	4,910	2,910	33,200
France	229	4,290	1,480	22,700
Germany	1	62	114	1,970
India	20	250	99	1,610
Korea, Republic of	--	--	16	228
Russia	45	621	1,680	18,000
Spain	--	--	29	138
Ukraine	--	--	1	22
United Kingdom	479	10,600	2,170	42,600
Total	1,180	20,700	8,500	120,000
Waste and scrap:				
Canada	7	36	10	55
China	51	278	76	496
Japan	2	18	2	23
South Africa	--	--	14	180
United Kingdom	27	326	226	2,380
Total	86	658	328	3,130
Other than waste and scrap and unwrought powders:				
Austria	--	--	(4)	3
Canada	--	--	(4)	8
China	1	113	5	520
France	--	--	(4)	22
Germany	1	50	14	451
Italy	--	--	(4)	30
Japan	1	16	4	220
Malaysia	(4)	5	(4)	23
Russia	--	--	749	8,730
South Africa	--	--	8	77
United Kingdom	--	--	55	827
Total	2	184	835	10,900
All grades:				
Australia	(4)	4	(4)	4
Austria	--	--	(4)	3
Canada	7	36	10	62
China	458	5,300	2,990	34,200
France	229	4,290	1,480	22,700
Germany	2	112	128	2,420
India	20	250	99	1,610
Italy	--	--	(4)	30
Japan	2	34	6	243
Korea, Republic of	--	--	16	228
Malaysia	(4)	5	(4)	23
Russia	45	621	2,430	26,700
South Africa	--	--	22	257
Spain	--	--	29	138
Ukraine	--	--	1	22
United Kingdom	506	10,900	2,450	45,800
Total	1,270	21,500	9,660	134,000

-- 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.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2022¹

Stainless steel product	July		January–July ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	964	\$8,570	7,630	\$53,800
Flat-rolled (width > 600 mm)	16,800	84,700	121,000	574,000
Flat-rolled (width < 600 mm)	4,770	35,400	35,200	240,000
Bars and rods in irregular coils	190	1,050	1,460	8,640
Other bars and rods	2,650	35,900	17,200	223,000
Wire	577	11,200	4,450	89,100
Tubes, pipes, hollow profiles	2,650	29,300	21,600	230,000
Total	28,600	206,000	208,000	1,420,000
Stainless steel scrap	101,000	31,300	253,000	215,000
Grand total	130,000	237,000	461,000	1,630,000
Imports:				
Ingot	18,900	58,700	105,000	337,000
Flat-rolled (width > 600 mm)	45,100	177,000	344,000	1,220,000
Flat-rolled (width < 600 mm)	5,250	29,600	38,800	194,000
Bars and rods in irregular coils	3,120	18,100	31,300	147,000
Other bars and rods	11,600	70,000	80,900	430,000
Wire	4,420	26,700	33,800	186,000
Tubes, pipes, hollow profiles	12,700	108,000	99,100	703,000
Total	101,000	488,000	732,000	3,210,000
Stainless steel scrap	22,200	33,300	166,000	303,000
Grand total	123,000	521,000	898,000	3,520,000

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.