

Mineral Industry Surveys

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CHROMIUM IN JULY 2016

On the basis of gross quantity, consumption of chromium ferroalloys and metal in July 2016 was about the same as that of June 2016. Consumption in July 2016 decreased by 3% compared with that of July 2015.

According to CRU Group, U.S. high-carbon (60%–70% chromium) ferrochromium (FeCr) price was 92.00 cents per pound of contained chromium in July 2016, unchanged from that in June 2016. The U.S. charge-grade FeCr (47%–55% chromium) price was 89.00 cents per pound of contained chromium in July 2016, unchanged from that of June 2016 (CRU Group, 2016).

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Reference Cited

CRU Group, 2016, CRU prices_chrome_historical data_29 Jul 2016 (Jul avg.): CRU Group, July 29. (Accessed August 23, 2016, via <http://www.crugroup.com/>)

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS^{1,2}

(Metric tons, gross weight)

	2015	2016			
	January– December ^p	May	June	July	January– July ³
Production, stainless steel ⁴	2,350,000	197,000	213,000	212,000	1,350,000
Components of U.S. supply:					
Stainless steel scrap receipts	907,000	75,300	75,300	62,900	515,000
Stainless steel scrap consumption	1,330,000	112,000	113,000	92,800	766,000
Imports for consumption:					
Chromite ore	131,000	10,200	1,610	34,300	90,000
Ferrochromium:					
More than 4% carbon	348,000 ^r	59,500	8,100	49,200	263,000
More than 3% but not more than 4% carbon	2,590	--	--	225	630
More than 0.5% but not more than 3% carbon	3,960	802	513	743	5,210
Not more than 0.5% carbon	48,300 ^r	2,420	2,730	4,040	19,000
Ferrochromium silicon	5,810	297	594	--	6,320
Total ferroalloy imports	408,000	63,000	11,900	54,200	294,000
Chromium metal ⁵	12,800 ^r	988	980	1,220	7,590
Stainless steel	1,030,000 ^r	45,900	51,500	76,500	349,000
Stainless steel scrap	192,000	21,200	24,000	26,100	153,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	417,000	33,600	33,400	33,500	238,000
Exports:					
Chromite ore	7,210	101	208	159	1,530
Chromium ferroalloys:					
High-carbon ferrochromium	723 ^r	5	57	51	357
Low-carbon ferrochromium	279	260	87	7	572
Ferrochromium silicon	73	--	--	--	--
Total ferroalloy exports	1,080 ^r	265	145	58	929
Chromium metal	801 ^r	52	98	42	320
Stainless steel	828,000 ^r	71,300 ^r	68,500 ^r	65,900	474,000
Stainless steel scrap	514,000 ^r	92,000	36,600	56,800	419,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	10,100	9,860	10,200	9,520	9,520
Government stockpile:					
Chromium ferroalloys	95,700	92,900	91,300	88,800	88,800
Chromium metal	3,960	3,910	3,910	3,910	3,910

^pPreliminary. ^rRevised. -- Zero.

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

²Trade reported in this table are sourced differently from those of previous months starting in this month.

³May include revised data that are not broken out by specific month(s).

⁴Data 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.

⁵Includes waste and scrap and other.

TABLE 2
U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS^{1,2}

(Metric tons, gross weight unless otherwise noted)

	2016		
	June	July	January– July ³
Consumption by end use:			
Steel:			
Carbon steel	166	147	1,210
High-strength low-alloy steel	131	131	924
Stainless and heat-resisting steel	29,900	30,000	213,000
Unspecified steel ⁴	2,720	2,720	19,000
Superalloys	429	429	3,000
Other alloys and uses ⁵	96	104	693
Total	33,400	33,500	238,000
Total, chromium content	19,200	19,300	137,000
Consumption by material:			
Low-carbon ferrochromium	1,790	1,730	12,500
High-carbon ferrochromium	29,000	29,200	207,000
Ferrochromium silicon	W	W	W
Chromium metal	157	159	1,110
Chromite ore	11	11	88
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	33,400	33,500	238,000
Total, chromium content	19,200	19,300	137,000
Consumer stocks:			
Low-carbon ferrochromium	1,510 ^r	1,470	1,470
High-carbon ferrochromium	7,880	7,180	7,180
Ferrochromium silicon	765	777	777
Chromium metal	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,200	9,520	9,520
Total, chromium content	5,990	5,560	5,560

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

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

²Includes estimates.

³May include revised data that are not broken out by specific month(s).

⁴Includes electrical, full alloy, tool, and unspecified steel end uses.

⁵Includes cast irons, welding and alloy hard-facing rods and materials, wear- and corrosion-resistant alloys, and aluminum, copper, magnetic, nickel, and other alloys.

TABLE 3
U.S. GOVERNMENT STOCKPILE INVENTORY OF
CHROMIUM MATERIALS¹

(metric tons)

	Chromium ferroalloys		Chromium metal
	High-carbon ferro-chromium	Low-carbon ferro-chromium	
2015:			
July	63,000	33,300	3,960
August	63,000	33,200	3,960
September	63,000	32,900	3,960
October	63,000	32,900	3,960
November	63,000	32,600	3,960
December	63,000	32,600	3,960
2016:			
January	62,100	32,500	3,930
February	62,100	32,300	3,930
March	61,600	32,300	3,910
April	61,200	32,200	3,910
May	60,700	32,200	3,910
June	60,300	31,000	3,910
July	57,900	30,900	3,910

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

Source: Defense Logistics Agency, DLA Strategic Materials.

TABLE 4
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)
2015:							
July	180	\$96	70	33	\$115	56 ^r	\$1,450 ^r
August	188	106	26	15	48	55	1,330
September	95	50	120	53	154	31	937
October	74	42	91	35	160	38	1,320
November	185	169	67	32	141	50	1,490
December	316	621	83	41	144	25	973
January–December ⁴	7,210	5,680	1,080	533	1,820	801	15,700
2016:							
January	186	121	83	50	114	25	1,100
February	227	124	73	35	108	32	1,000
March	257	173	261	160	409	31	970
April	390	269	44	27	91	39	1,330
May	101	39	265	121	427	52	1,580
June	208	157	145	80	226	98	2,040
July	159	84	58	35	98	42	1,060
January–July ⁴	1,530	968	929	508	1,470	320	9,080

^rRevised.

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 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND
CHROMIUM METAL¹

(Metric tons)

	2015	2016		
	January– December	June	July	January– July ²
Chromite ore:				
More than 40% but less than 46% chromic oxide:				
Gross weight	34,600	336	16,200	20,100
Chromic oxide content	15,100	147	7,450	9,110
46% or more chromic oxide:				
Gross weight	96,100	1,280	18,100	70,000
Chromic oxide content	66,700	1,080	9,160	33,700
Total, all grades:				
Gross weight	131,000	1,610	34,300	90,000
Chromic oxide content	81,800	1,230	16,600	42,800
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	48,300 ^r	2,730	4,040	19,000
Chromium content	32,800	1,770	2,700	12,400
More than 0.5% but not more than 3% carbon:				
Gross weight	3,960	513	743	5,210
Chromium content	2,660	315	457	3,290
Total, low-carbon:				
Gross weight	52,300 ^r	3,240	4,790	24,200
Chromium content	35,400 ^r	2,080	3,160	15,700
Medium-carbon: ⁴				
Gross weight	2,590	--	225	630
Chromium content	1,320	--	121	340
High-carbon: ⁵				
Gross weight	348,000 ^r	8,100	49,200	263,000
Chromium content	189,000	4,930	27,900	145,000
Total, all grades:				
Gross weight	402,000	11,300	54,200	287,000
Chromium content	226,000	7,010	31,100	161,000
Chromium metal:				
Unwrought powders	4,820 ^r	230	531	3,210
Waste and scrap	153	29	42	115
Other than waste and scrap and unwrought powders	7,870 ^r	722	650	4,270
Total, all grades	12,800^r	980	1,220	7,590

¹Revised. -- Zero.

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

³May include revised data that are not broken out by specific month(s).

⁴Ferrochromium containing not more than 3% carbon.

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

⁶Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2016, BY GRADE AND COUNTRY¹

Grade and country	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	--	--	--	673	456	\$792
Brazil	--	--	--	1,040	554	687
India	346	213	\$329	4,600	2,830	4,390
Kazakhstan	2,670	1,860	3,130	26,800	21,900	27,400
Oman	1,050	611	899	2,360	1,410	2,170
Russia	115	80	131	3,220	2,100	4,350
South Africa	28,900	14,300	18,600	198,000	98,800	138,000
Sweden	--	--	--	653	437	720
Switzerland	41	25	30	41	25	30
Turkey	16,000	10,800	17,900	19,100	12,800	21,000
Zimbabwe	--	--	--	6,120	3,460	5,920
Total	49,200	27,900	41,000	263,000	145,000	206,000
Medium-carbon ferrochromium:⁵						
Russia	225	121	120	225	121	120
South Africa	--	--	--	405	218	216
Total	225	121	120	630	340	337
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	513	314	962	3,290	2,020	6,370
China	230	143	435	1,160	742	2,380
Hong Kong	--	--	--	25	15	47
Kazakhstan	--	--	--	728	513	2,140
Total	743	457	1,400	5,210	3,290	10,900
Not more than 0.5% carbon:						
Brazil	486	298	983	4,620	2,640	8,620
China	341	220	691	2,350	1,480	4,940
Germany	260	181	860	2,640	1,840	10,000
India	18	12	67	81	52	361
Japan	180	126	755	1,030	726	4,200
Kazakhstan	--	--	--	1,540	1,110	4,300
Mexico	--	--	--	32	20	133
Netherlands	1,310	898	3,150	1,510	999	3,640
Russia	1,200	800	2,810	3,540	2,460	9,200
South Africa	84	46	164	84	46	164
Turkey	168	116	429	1,540	1,060	4,100
United Kingdom	--	--	--	1	1	8
Total	4,040	2,700	9,910	19,000	12,400	49,700
All grades:						
Albania	--	--	--	673	456	792
Brazil	999	612	1,950	8,960	5,220	15,700
China	571	363	1,130	3,510	2,220	7,320
Germany	260	181	860	2,640	1,840	10,000
Hong Kong	--	--	--	25	15	47
India	364	225	395	4,680	2,890	4,750
Japan	180	126	755	1,030	726	4,200
Kazakhstan	2,670	1,860	3,130	29,100	23,500	33,900
Mexico	--	--	--	32	20	133
Netherlands	1,310	898	3,150	1,510	999	3,640
Oman	1,050	611	899	2,360	1,410	2,170
Russia	1,540	1,000	3,060	6,980	4,680	13,700
South Africa	29,000	14,300	18,700	199,000	99,100	139,000
Sweden	--	--	--	653	437	720
Switzerland	41	25	30	41	25	30
Turkey	16,200	10,900	18,300	20,700	13,800	25,100
United Kingdom	--	--	--	1	1	8
Zimbabwe	--	--	--	6,120	3,460	5,920
Total	54,200	31,100	52,400	287,000	161,000	267,000

(See footnotes at end of table)

TABLE 6—continued
 U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2016, BY GRADE AND COUNTRY¹

Grade and country	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)

-- 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 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2016, BY GRADE AND BY COUNTRY¹

Grade and country	July		January–July ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	155	\$1,630	719	\$8,740
France	47	632	488	5,550
Germany	2	79	11	328
Japan	--	--	43	452
Korea, Republic of	(4)	3	(4)	3
Malaysia	--	--	(4)	4
Russia	--	--	303	2,150
Taiwan	--	--	1	30
United Kingdom	327	3,300	1,640	17,100
Total	531	5,640	3,210	34,400
Waste and scrap:				
Canada	30	53	44	91
China	--	--	3	33
France	--	--	19	271
India	--	--	(4)	4
Japan	11	229	16	352
United Kingdom	--	--	32	286
Total	42	283	115	1,040
Other than waste and scrap and unwrought powders:				
Brazil	--	--	(4)	4
Canada	16	1,060	154	11,100
China	48	365	337	2,620
France	178	1,410	1,040	11,500
Germany	63	426	370	2,410
Hong Kong	--	--	(4)	2
Japan	--	--	6	251
Malaysia	--	--	(4)	13
Netherlands	--	--	(4)	40
New Zealand	(4)	5	1	21
Romania	(4)	7	(4)	7
Russia	332	2,240	2,160	14,900
Spain	--	--	119	822
Switzerland	--	--	(4)	21
Taiwan	--	--	(4)	5
United Kingdom	14	176	82	922
Total	650	5,680	4,270	44,700
All grades:				
Brazil	--	--	(4)	4
Canada	46	1,110	198	11,200
China	203	2,000	1,060	11,400
France	225	2,050	1,540	17,300
Germany	65	505	381	2,740
Hong Kong	--	--	(4)	2
India	--	--	(4)	4
Japan	11	229	65	1,060
Korea, Republic of	(4)	3	(4)	3
Malaysia	--	--	(4)	17
Netherlands	--	--	(4)	40
New Zealand	(4)	5	1	21
Romania	(4)	7	(4)	7
Russia	332	2,240	2,470	17,100
Spain	--	--	119	822
Switzerland	--	--	(4)	21
Taiwan	--	--	1	35
United Kingdom	341	3,470	1,750	18,300
Total	1,220	11,600	7,590	80,100

(See footnotes at end of table)

TABLE 7—continued
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2016, BY GRADE AND BY COUNTRY¹

Grade and country	July		January–July ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)

-- 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 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2016^{1,2}

Stainless steel product	July		January–July ³	
	Gross weight (metric tons)	Value ⁴ (thousands)	Gross weight (metric tons)	Value ⁴ (thousands)
Exports:				
Ingot	1,610	\$9,440	16,500	\$74,600
Flat-rolled (width > 600 mm)	46,500	84,700	342,000	590,000
Flat-rolled (width < 600 mm)	8,570	32,900	50,900	197,000
Bars and rods in irregular coils	1,540	4,260	8,630	25,100
Other bars and rods	2,530	19,500	20,900	162,000
Wire	697	9,760	5,510	69,400
Tubes, pipes, hollow profiles	4,450	35,800	29,900	252,000
Total	65,900	196,000	474,000	1,370,000
Stainless steel scrap	56,800	35,200	419,000	249,000
Grand total	123,000	231,000	893,000	1,620,000
Imports:				
Ingot	8,190	38,900	56,100	265,000
Flat-rolled (width > 600 mm)	32,500	70,800	219,000	474,000
Flat-rolled (width < 600 mm)	5,240	17,200	39,600	128,000
Bars and rods in irregular coils	3,130	7,520	19,500	49,900
Other bars and rods	13,200	44,900	78,800	276,000
Wire	3,750	14,600	26,700	111,000
Tubes, pipes, hollow profiles	10,600	73,500	81,000	495,000
Total	76,500	267,000	521,000	1,800,000
Stainless steel scrap	26,100	18,000	153,000	94,500
Grand total	103,000	285,000	675,000	1,890,000

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

²Trade reported in this table are sourced differently from those of previous months starting in this month.

³May include revised data that are not broken out by specific month(s).

⁴Export 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 charges incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.