

Mineral Industry Surveys

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CHROMIUM IN APRIL 2016

On the basis of gross quantity, consumption of chromium ferroalloys and metal in April 2016 increased by 3% compared with that of March 2016. Consumption in April 2016 was slightly less than that of April 2015.

According to CRU Group, U.S. high-carbon (60%–70% chromium) ferrochromium (FeCr) price was 92.50 cents per pound of contained chromium in April 2016, compared with 93.70 cents per pound of contained chromium in March 2016. U.S. charge-grade FeCr (47%–55% chromium) price was 89.00 cents per pound of contained chromium in April 2016 remaining unchanged from the March 2016 price (CRU Group, 2016).

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Reference Cited

CRU Group, 2016, CRU Prices_Chrome_Historical Data_01 Jun 2016 (May Avg.): CRU Group, June 1. (Accessed June 3, 2016, via <http://www.crugroup.com/>.)

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2015	2016			
	January– December ^p	February	March	April	January– April ²
Production, stainless steel ³	2,350,000	165,000	173,000	203,000	733,000
Components of U.S. supply:					
Stainless steel scrap receipts	907,000 ^r	76,000 ^r	75,900 ^r	76,000	302,000
Stainless steel scrap consumption	1,330,000 ^r	110,000 ^r	112,000 ^r	114,000	449,000
Imports for consumption:					
Chromite ore	131,000	7,060	24,600	2,190	44,000
Ferrochromium:					
More than 4% carbon	347,000	89,500	10,600	34,800	146,000
More than 3% but not more than 4% carbon	2,590	405	--	--	405
More than 0.5% but not more than 3% carbon	3,960	1,880	617	175	3,150
Not more than 0.5% carbon	48,400	1,500	3,750	2,710	9,770
Ferrochromium silicon	5,810	3,730	1,400	297	5,430
Total ferroalloy imports	408,000	97,000	16,400	38,000	165,000
Chromium metal ⁴	12,900	978	960	1,360	4,400
Stainless steel	700,000	44,800	58,000	54,800	202,000
Stainless steel scrap	192,000	17,900	22,600	24,700	82,100
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	417,000	34,000	33,600	34,600	137,000
Exports:					
Chromite ore	7,210	227	257	390	1,060
Chromium ferroalloys:					
High-carbon ferrochromium	740	54	105	26	243
Low-carbon ferrochromium	279	19	156	18	218
Ferrochromium silicon	73	--	--	--	--
Total ferroalloy exports	1,090	73	261	44	461
Chromium metal	800	32	31	39	127
Stainless steel	809,000	64,400	60,900	73,900	264,000
Stainless steel scrap	520,000	104,000	37,200	40,200	234,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	10,100	10,100	10,000	9,860	9,860
Government stockpile:					
Chromium ferroalloys	95,700	94,400	93,900	93,400	93,400
Chromium metal	3,960	3,930	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.

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.

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

(Metric tons, gross weight unless otherwise noted)

	2016		
	March	April	January– April ³
Consumption by end use:			
Steel:			
Carbon steel	185	187	722
High-strength low-alloy steel	131	131	533
Stainless and heat-resisting steel	30,000	31,000	123,000
Unspecified steel ⁴	2,720	2,720	10,900
Superalloys	428	431	1,720
Other alloys and uses ⁵	116	95	403
Total	33,600	34,600	137,000
Total, chromium content	19,100	19,800	78,600
Consumption by material:			
Low-carbon ferrochromium	1,790	1,800	7,160
High-carbon ferrochromium	29,100	30,200	120,000
Ferrochromium silicon	W	W	W
Chromium metal	158	157	636
Chromite ore	29	5	59
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	33,600	34,600	137,000
Total, chromium content	19,100	19,800	78,600
Consumer stocks:			
Low-carbon ferrochromium	1,510	1,490	1,490
High-carbon ferrochromium	7,640	7,500	7,500
Ferrochromium silicon	755	771	771
Chromium metal	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,000	9,860	9,860
Total, chromium content	5,790	5,740	5,740

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:			
April	69,700	34,000	3,960
May	67,100	33,700	3,960
June	64,100	33,400	3,960
July	63,000	33,300	3,960
August	63,000	32,200	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

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:							
April	318	\$779	106	55	\$172	160	\$2,120
May	1,990	1,530	27	16	60	97	1,040
June	1,250	688	22	13	46	32	821
July	180	96	70	33	115	48	1,380
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	1,090	545	1,860	800	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
January–April ⁴	1,060	687	461	271	722	127	4,400

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	March	April	January– April ²
Chromite ore:				
More than 40% but less than 46% chromic oxide:				
Gross weight	34,600	38	1,790	3,420
Chromic oxide content	15,100	17	751	1,480
46% or more chromic oxide:				
Gross weight	96,100	24,600	407	40,600
Chromic oxide content	66,700	11,300	213	18,800
Total, all grades:				
Gross weight	131,000	24,600	2,190	44,000
Chromic oxide content	81,800	11,300	964	20,300
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	48,400	3,750	2,710	9,770
Chromium content	32,800	2,470	1,780	6,360
More than 0.5% but not more than 3% carbon:				
Gross weight	3,960	617	175	3,150
Chromium content	2,660	416	113	2,020
Total, low-carbon:				
Gross weight	52,400	4,370	2,890	12,900
Chromium content	35,500	2,880	1,890	8,380
Medium-carbon: ⁴				
Gross weight	2,590	--	--	405
Chromium content	1,320	--	--	218
High-carbon: ⁵				
Gross weight	347,000	10,600	34,800	146,000
Chromium content	189,000	7,210	17,700	82,400
Total, all grades:				
Gross weight	402,000	15,000	37,700	159,000
Chromium content	226,000	10,100	19,600	91,000
Chromium metal:				
Unwrought powders	4,840	508	435	1,940
Waste and scrap	153	5	6	19
Other than waste and scrap and unwrought powders	7,890	446	920	2,440
Total, all grades	12,900	960	1,360	4,400

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

Grade and country	April			January–April 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	199	136	\$225	414	281	\$479
Brazil	--	--	--	618	327	400
India	836	514	736	2,580	1,610	2,460
Kazakhstan	60	41	114	22,100	18,600	21,800
Russia	--	--	--	3,000	1,950	4,020
South Africa	33,200	16,700	24,200	111,000	56,000	81,000
Sweden	1	1	3	653	437	720
Turkey	501	321	507	2,190	1,400	2,180
Zimbabwe	--	--	--	3,170	1,820	3,200
Total	34,800	17,700	25,800	146,000	82,400	116,000
Medium-carbon ferrochromium, South Africa⁵						
	--	--	--	405	218	216
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	--	--	--	1,760	1,080	3,390
China	150	98	315	640	412	1,340
Hong Kong	25	15	47	25	15	47
Kazakhstan	--	--	--	728	513	2,140
Total	175	113	362	3,150	2,020	6,920
Not more than 0.5% carbon:						
Brazil	1,080	667	2,140	3,100	1,720	5,790
China	443	279	912	794	498	1,660
Germany	440	306	1,740	1,640	1,140	6,470
India	2	1	7	35	22	169
Japan	195	136	748	434	305	1,670
Kazakhstan	--	--	--	1,540	1,110	4,300
Mexico	4	2	15	4	2	15
Netherlands	40	30	104	40	30	104
Russia	318	225	786	1,150	816	3,210
Turkey	189	132	486	1,040	720	2,830
United Kingdom	1	1	8	1	1	8
Total	2,710	1,780	6,940	9,770	6,360	26,200
All grades:						
Albania	199	136	225	414	281	479
Brazil	1,080	667	2,140	5,470	3,120	9,580
China	593	377	1,230	1,430	911	2,990
Germany	440	306	1,740	1,640	1,140	6,470
Hong Kong	25	15	47	25	15	47
India	838	516	743	2,610	1,630	2,630
Japan	195	136	748	434	305	1,670
Kazakhstan	60	41	114	24,300	20,200	28,200
Mexico	4	2	15	4	2	15
Netherlands	40	30	104	40	30	104
Russia	318	225	786	4,150	2,770	7,230
South Africa	33,200	16,700	24,200	112,000	56,200	81,200
Sweden	1	1	3	653	437	720
Turkey	690	453	993	3,230	2,120	5,000
United Kingdom	1	1	8	1	1	8
Zimbabwe	--	--	--	3,170	1,820	3,200
Total	37,700	19,600	33,100	159,000	91,000	150,000

(See footnotes at end of table)

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

Grade and country	April			January–April 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	April		January–April ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	96	\$1,200	377	\$5,110
France	--	--	409	4,530
Germany	(4)	16	5	143
Japan	1	18	2	39
Malaysia	(4)	4	(4)	4
Russia	72	484	138	1,020
United Kingdom	266	2,630	1,010	10,300
Total	435	4,360	1,940	21,100
Waste and scrap:				
Canada	2	4	2	6
India	(4)	4	(4)	4
Japan	2	11	3	50
United Kingdom	2	42	13	176
Total	6	62	19	237
Other than waste and scrap and unwrought powders:				
Canada	25	1,530	100	7,050
China	20	300	205	1,720
France	247	3,220	533	6,280
Germany	49	340	258	1,560
Hong Kong	--	--	(4)	2
Japan	1	72	5	165
Malaysia	(4)	6	(4)	13
Netherlands	--	--	(4)	40
New Zealand	--	--	(4)	15
Russia	556	3,950	1,220	8,650
Spain	--	--	72	493
Switzerland	--	--	(4)	21
Taiwan	--	--	(4)	2
United Kingdom	22	134	49	505
Total	920	9,550	2,440	26,500
All grades:				
Canada	26	1,530	102	7,060
China	116	1,500	582	6,830
France	247	3,220	942	10,800
Germany	49	357	263	1,710
Hong Kong	--	--	(4)	2
India	(4)	4	(4)	4
Japan	5	101	9	254
Malaysia	(4)	10	(4)	17
Netherlands	--	--	(4)	40
New Zealand	--	--	(4)	15
Russia	628	4,430	1,360	9,670
Spain	--	--	72	493
Switzerland	--	--	(4)	21
Taiwan	--	--	(4)	2
United Kingdom	290	2,810	1,070	10,900
Total	1,360	14,000	4,400	47,900

-- 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 2016¹

Stainless steel product	April		January–April ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	2,050	\$10,100	11,200	\$47,200
Flat-rolled (width > 600 mm)	56,600	87,900	194,000	328,000
Flat-rolled (width < 600 mm)	7,380	30,700	27,300	105,000
Bars and rods in irregular coils	1,070	2,980	4,370	13,300
Other bars and rods	2,930	22,300	11,600	92,100
Wire	723	9,750	3,060	39,900
Tubes, pipes, hollow profiles	3,130	25,900	12,300	109,000
Total	73,900	190,000	264,000	735,000
Stainless steel scrap	40,200	33,500	234,000	142,000
Grand total	114,000	223,000	498,000	877,000
Imports:				
Ingot	8,020	42,500	29,900	154,000
Flat-rolled (width > 600 mm)	28,200	56,900	103,000	209,000
Flat-rolled (width < 600 mm)	6,260	19,900	22,700	72,900
Bars and rods in irregular coils	2,590	6,650	10,200	27,400
Other bars and rods	533	2,260	1,800	8,000
Wire	654	3,600	3,030	16,100
Tubes, pipes, hollow profiles	8,530	48,800	31,600	182,000
Total	54,800	181,000	202,000	669,000
Stainless steel scrap	24,700	12,800	82,100	44,500
Grand total	79,500	193,000	284,000	714,000

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 charges incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.