

Mineral Industry Surveys

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CHROMIUM IN NOVEMBER 2016

Reported consumption of chromium in November 2016 was about 5% less than that of the previous month and was slightly less than that of November 2015.

According to CRU Group, the U.S. high-carbon (60%–70% chromium) ferrochromium (FeCr) price was 99.722 cents per pound of contained chromium in November 2016, compared with 87.000 cents per pound of contained chromium in October 2016. The U.S. charge-grade FeCr (47%–55% chromium) price was 96.111 cents per pound of contained chromium in November 2016, compared with 91.000 in October 2016 (CRU Group, 2016).

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Reference Cited

CRU Group, 2016, CRU prices_chrome_historical data_30 Dec 2016 (Dec. avg.): CRU Group, November 31. (Accessed January 12, 2017, via <http://www.crugroup.com/>.)

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2015	2016			January– November ²
	January– December ^p	September	October	November	
Production, stainless steel ³	2,350,000	241,000	234,000	213,000	2,280,000
Components of U.S. supply:					
Stainless steel scrap receipts	907,000	73,300	74,000	72,800	819,000
Stainless steel scrap consumption	1,330,000	108,000	113,000	110,000	1,230,000
Imports for consumption:					
Chromite ore	131,000	9,600	118	126	102,000
Ferrochromium:					
More than 4% carbon	348,000	28,100	23,500	32,400	373,000
More than 3% but not more than 4% carbon	2,590	6,020	236	--	11,400
More than 0.5% but not more than 3% carbon	3,960	621	--	31	6,940
Not more than 0.5% carbon	48,300	1,850	1,120	6,450	31,800
Ferrochromium silicon	5,810	--	--	--	7,300
Total ferroalloy imports	408,000	36,600	24,900	38,800	430,000
Chromium metal ⁴	12,800	1,060	1,380	1,380	12,400
Stainless steel	1,030,000	67,500	78,800	86,100	830,000
Stainless steel scrap	192,000	23,100	20,100	20,600	245,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	417,000	32,700	35,200	33,600	374,000
Exports:					
Chromite ore	7,210	176	252	201	2,270
Chromium ferroalloys:					
High-carbon ferrochromium	723	--	22	58	557
Low-carbon ferrochromium	279	27	98	1	763
Ferrochromium silicon	73	--	--	4	25
Total ferroalloy exports	1,080	27	120	64	1,340
Chromium metal	801	30	45	35	471
Stainless steel	828,000	69,700	74,800	82,000	937,000
Stainless steel scrap	514,000	38,400	39,400	41,900	604,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	10,100	10,000	9,630	10,400	10,400
Government stockpile:					
Chromium ferroalloys	95,700	88,100	88,100	88,100	88,100
Chromium metal	3,960	3,910	3,910	3,910	3,910

^pPreliminary. -- 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		
	October	November	January– November ³
Consumption by end use:			
Steel:			
Carbon steel	151	151	1,850
High-strength low-alloy steel	130	130	1,450
Stainless and heat-resisting steel	31,600	30,000	335,000
Unspecified steel ⁴	2,720	2,720	29,900
Superalloys	430	427	4,700
Other alloys and uses ⁵	95	97	1,100
Total	35,200	33,600	374,000
Total, chromium content	20,100	19,300	215,000
Consumption by material:			
Low-carbon ferrochromium	1,780	1,800	19,600
High-carbon ferrochromium	30,800	29,200	326,000
Ferrochromium silicon	W	W	W
Chromium metal	159	159	1,750
Chromite ore	8	8	149
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	35,200	33,600	374,000
Total, chromium content	20,100	19,300	215,000
Consumer stocks:			
Low-carbon ferrochromium	1,450	1,460	1,460
High-carbon ferrochromium	7,300	8,050	8,050
Ferrochromium silicon	767	781	781
Chromium metal	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	9,630	10,400	10,400
Total, chromium content	5,590	6,080	6,080

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:			
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
August	57,700	30,900	3,910
September	57,400	30,700	3,910
October	57,400	30,700	3,910
November	57,400	30,700	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:							
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
August	113	57	205	99	225	42	1,150
September	176	93	27	13	36	30	996
October	252	194	120	72	253	45	1,090
November	201	86	64	37	94	35	942
January–November ⁴	2,270	1,400	1,340	729	2,080	471	13,300

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	October	November	January– November ²
Chromite ore:				
More than 40% but less than 46% chromic oxide:				
Gross weight	34,600	100	--	21,100
Chromic oxide content	15,100	45	--	9,550
46% or more chromic oxide:				
Gross weight	96,100	18	126	81,200
Chromic oxide content	66,700	18	68	40,500
Total, all grades:				
Gross weight	131,000	118	126	102,000
Chromic oxide content	81,800	63	68	50,100
Ferrochromium:				
Low-carbon:³				
Not more than 0.5% carbon:				
Gross weight	48,300	1,120	6,450	31,800
Chromium content	32,800	756	4,440	21,200
More than 0.5% but not more than 3% carbon:				
Gross weight	3,960	--	31	6,940
Chromium content	2,660	--	20	4,390
Total, low-carbon:				
Gross weight	52,300	1,120	6,480	38,700
Chromium content	35,400	756	4,460	25,600
Medium-carbon:⁴				
Gross weight	2,590	236	--	11,400
Chromium content	1,320	127	--	5,740
High-carbon:⁵				
Gross weight	348,000	23,500	32,400	373,000
Chromium content	189,000	12,100	15,900	201,000
Total, all grades:				
Gross weight	402,000	24,900	38,800	423,000
Chromium content	226,000	13,000	20,400	232,000
Chromium metal:				
Unwrought powders	4,820	574	490	5,010
Waste and scrap	153	22	10	174
Other than waste and scrap and unwrought powders	7,870	788	877	7,210
Total, all grades	12,800	1,380	1,380	12,400

-- 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	November			January–November 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	212	146	\$263	1,530	1,040	\$1,820
Brazil	--	--	--	1,040	554	687
India	557	296	368	7,660	4,660	7,150
Kazakhstan	190	134	273	34,300	27,200	35,700
Oman	--	--	--	2,900	1,730	2,660
Russia	--	--	--	3,290	2,150	4,480
South Africa	30,600	14,800	21,900	294,000	146,000	205,000
Sweden	596	398	832	1,840	1,230	2,310
Switzerland	--	--	--	41	25	30
Turkey	155	109	381	19,400	13,000	21,500
Zimbabwe	--	--	--	6,120	3,460	5,920
Total	32,400	15,900	24,000	373,000	201,000	287,000
Medium-carbon ferrochromium:⁵						
China	--	--	--	12	6	6
Russia	--	--	--	450	242	241
South Africa	--	--	--	11,000	5,490	8,160
Total	--	--	--	11,400	5,740	8,410
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	--	--	--	4,560	2,800	8,870
China	--	--	--	1,160	742	2,380
Hong Kong	--	--	--	25	15	47
Kazakhstan	--	--	--	1,160	806	2,850
South Africa	31	20	44	31	20	44
Total	31	20	44	6,940	4,390	14,200
Not more than 0.5% carbon:						
Brazil	--	--	--	4,840	2,750	9,080
China	75	46	160	2,910	1,820	6,080
Germany	400	277	1,680	4,240	2,960	16,200
India	--	--	--	81	52	361
Japan	201	141	829	1,750	1,230	7,200
Kazakhstan	647	462	1,610	3,850	2,750	9,700
Mexico	--	--	--	90	58	540
Netherlands	--	--	--	1,510	999	3,640
Russia	4,920	3,370	11,200	9,920	6,880	24,400
South Africa	42	23	81	266	98	386
Turkey	168	119	427	2,340	1,630	6,200
United Kingdom	--	--	--	2	1	10
Total	6,450	4,440	16,000	31,800	21,200	83,800
All grades:						
Albania	212	146	263	1,530	1,040	1,820
Brazil	--	--	--	10,400	6,110	18,600
China	75	46	160	4,080	2,570	8,460
Germany	400	277	1,680	4,240	2,960	16,200
Hong Kong	--	--	--	25	15	47
India	557	296	368	7,740	4,710	7,510
Japan	201	141	829	1,750	1,230	7,200
Kazakhstan	838	596	1,890	39,400	30,700	48,300
Mexico	--	--	--	90	58	540
Netherlands	--	--	--	1,510	999	3,640
Oman	--	--	--	2,900	1,730	2,660
Russia	4,920	3,370	11,200	13,700	9,260	29,100
South Africa	30,700	14,900	22,000	306,000	152,000	214,000
Sweden	596	398	832	1,840	1,230	2,310
Switzerland	--	--	--	41	25	30
Turkey	323	229	808	21,800	14,600	27,700
United Kingdom	--	--	--	2	1	10

(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	November			January–November ²		
	Gross weight (metric tons)	Chromium content (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value ³ (thousands)
Zimbabwe	--	--	--	6,120	3,460	5,920
Total	38,800	20,400	40,000	423,000	232,000	394,000

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

Grade and country	November		January–November ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	130	\$1,490	1,130	\$12,700
France	73	970	632	7,300
Germany	(4)	16	13	412
Japan	--	--	43	466
Korea, Republic of	--	--	(4)	3
Malaysia	--	--	(4)	4
Russia	7	52	607	4,170
Taiwan	--	--	2	59
United Kingdom	280	2,680	2,590	26,300
Total	490	5,210	5,010	51,400
Waste and scrap:				
Canada	6	17	89	212
China	--	--	3	33
France	--	--	19	271
Germany	1	15	1	15
India	--	--	(4)	4
Japan	2	19	23	469
Russia	--	--	1	31
United Kingdom	--	--	38	317
Total	10	51	174	1,350
Other than waste and scrap and unwrought powders:				
Austria	--	--	11	52
Brazil	--	--	(4)	4
Canada	15	1,080	228	16,100
China	1	26	383	2,910
France	388	3,950	2,200	22,900
Germany	61	256	602	3,670
Hong Kong	--	--	(4)	2
Japan	(4)	33	7	308
Malaysia	--	--	(4)	13
Netherlands	--	--	(4)	40
New Zealand	(4)	3	1	40
Romania	--	--	(4)	88
Russia	376	2,360	3,390	23,100
South Africa	--	--	134	86
Spain	24	164	143	987
Switzerland	--	--	(4)	21
Taiwan	5	110	5	115
United Kingdom	7	78	115	1,320
Total	877	8,050	7,210	71,800
All grades:				
Austria	--	--	11	52
Brazil	--	--	(4)	4
Canada	21	1,090	318	16,300
China	131	1,510	1,510	15,600
France	462	4,920	2,850	30,500
Germany	62	287	616	4,090
Hong Kong	--	--	(4)	2
India	--	--	(4)	4
Japan	3	51	73	1,240
Korea, Republic of	--	--	(4)	3
Malaysia	--	--	(4)	17
Netherlands	--	--	(4)	40
New Zealand	(4)	3	1	40
Romania	--	--	(4)	88
Russia	383	2,410	4,000	27,300
South Africa	--	--	134	86

(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	November		January–November ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Spain	24	164	143	987
Switzerland	--	--	(4)	21
Taiwan	5	110	7	174
United Kingdom	287	2,760	2,740	28,000
Total	1,380	13,300	12,400	125,000

-- 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 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2016¹

Stainless steel product	November		January–November ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	2,900	\$9,230	25,400	\$109,000
Flat-rolled (width > 600 mm)	49,000	83,800	543,000	930,000
Flat-rolled (width < 600 mm)	8,070	31,600	84,100	319,000
Bars and rods in irregular coils	1,310	3,730	14,700	42,500
Other bars and rods	2,850	23,400	32,300	251,000
Wire	762	8,780	8,760	108,000
Tubes, pipes, hollow profiles	17,100	196,000	229,000	2,000,000
Total	82,000	356,000	937,000	3,760,000
Stainless steel scrap	41,900	40,600	604,000	395,000
Grand total	124,000	397,000	1,540,000	4,160,000
Imports:				
Ingot	13,300	39,100	94,700	417,000
Flat-rolled (width > 600 mm)	37,200	82,500	361,000	776,000
Flat-rolled (width < 600 mm)	5,660	18,800	63,000	204,000
Bars and rods in irregular coils	2,670	7,020	28,500	74,000
Other bars and rods	11,100	40,200	118,000	418,000
Wire	4,260	16,500	41,100	170,000
Tubes, pipes, hollow profiles	12,000	65,800	124,000	738,000
Total	86,100	270,000	830,000	2,800,000
Stainless steel scrap	20,600	15,500	245,000	167,000
Grand total	107,000	285,000	1,080,000	2,960,000

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.