

Mineral Industry Surveys

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CHROMIUM IN JULY 2014

On the basis of gross weight, consumption of chromium ferroalloys and metal in July 2014 was about the same as that of June 2014. Consumption in July 2014 increased slightly compared with that of July 2013.

Included in this Mineral Industry Surveys are U.S. salient chromium statistics, U.S. Government stockpile inventory of chromium materials in July 2014, consumption by end use and by material, consumer stocks of chromium products at the end of

July 2014, and U.S. foreign trade data for selected chromium-containing materials in July 2014.

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TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2013 ^p	2014			
	January– December ²	May	June	July	January– July ²
Production, stainless steel ³	2,030,000	196,000	216,000	203,000	1,370,000
Components of U.S. supply:					
Stainless steel scrap receipts	882,000	73,500	77,700	72,400	520,000
Stainless steel scrap consumption	1,300,000	108,000	110,000	107,000	760,000
Imports for consumption:					
Chromite ore	173,000	8,350	30,700	3,110	80,000
Ferrochromium:					
More than 4% carbon	416,000	63,100	55,100	39,500	329,000
More than 3% but not more than 4% carbon	370	--	--	--	30
More than 0.5% but not more than 3% carbon	13,800	--	4,520	--	8,150
Not more than 0.5% carbon	36,500	3,940	2,660	5,120	27,000
Ferrochromium silicon	12,000	--	40	--	9,810
Total ferroalloy imports	478,000	67,000	62,300	44,600	374,000
Chromium metal ⁴	13,700	1,540	1,170	1,400	10,400
Stainless steel	570,000	58,900	55,800	64,900	385,000
Stainless steel scrap	226,000	32,700	33,500	31,900	208,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	422,000	36,600	36,100 ^r	36,200	253,000
Exports:					
Chromite ore	8,530	503	553	281	3,360
Chromium ferroalloys:					
High-carbon ferrochromium	4,460	335	572	387	2,410
Low-carbon ferrochromium	379	59	22	98	479
Ferrochromium silicon	16	--	--	--	--
Total ferroalloy exports	4,850	394	594	485	2,890
Chromium metal	856	114	62	46	435
Stainless steel	603,000	60,000	74,400	69,600	414,000
Stainless steel scrap	644,000	49,000	46,500	49,900	322,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	9,770	10,200	10,100 ^r	10,000	10,000
Government stockpile:					
Chromium ferroalloys	132,000	119,000	117,000	NA	NA
Chromium metal	4,090	4,000	4,000	NA	NA

^pPreliminary. ^rRevised. NA Not available. -- 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)

	2014		
	June	July	January– July ³
Consumption by end use:			
Steel:			
Carbon steel	141 ^r	240	1,430
High-strength low-alloy steel	134	138	1,030
Stainless and heat-resisting steel	31,800	31,800	223,000
Unspecified steel ⁴	3,430 ^r	3,460	23,800
Superalloys	431	426	3,040
Other alloys and uses ⁵	98 ^r	97	663
Total	36,100 ^r	36,200	253,000
Total, chromium content	20,700 ^r	20,700	145,000
Consumption by material:			
Low-carbon ferrochromium	1,930 ^r	2,020	13,900
High-carbon ferrochromium	31,600 ^r	31,600	221,000
Ferrochromium silicon	W	W	W
Chromium metal	160	160	1,170
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	36,100 ^r	36,200	253,000
Total, chromium content	20,700 ^r	20,700	145,000
Consumer stocks:			
Low-carbon ferrochromium	1,580	1,530	1,530
High-carbon ferrochromium	7,660 ^r	7,640	7,640
Ferrochromium silicon	W	W	W
Chromium metal	48	46	46
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,100 ^r	10,000	10,000
Total, chromium content	5,870 ^r	5,830	5,830

^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 MATERIALS^{1,2}

(Metric tons)

Period	Chromium ferroalloys		Chromium metal
	High-carbon ferro-chromium	Low-carbon ferro-chromium	
2013:			
July	90,000	46,000	4,090
August	90,000	46,000	4,090
September	88,600	45,600	4,090
October	88,600	45,600	4,090
November	86,300	45,300	4,090
December	85,100	44,300	4,090
2014:			
January	82,300	43,500	4,090
February	81,000	43,300	4,090
March	81,000	42,300	4,040
April	79,500	41,700	4,040
May	77,600	41,100	4,000
June	77,200	40,200	4,000
July	NA	NA	NA

NA Not available.

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

²These Government stocks are reported by the Defense Logistics Agency, DLA Strategic Materials in Inventory of Stockpile Materials D-1, which reports uncommitted inventory. Uncommitted inventory is that inventory for which there is no sales contract. Committed inventory is that inventory for which there is a sales contract, however, the material has not yet been shipped. For chromium materials, the D-1 report includes chromium materials that (1) meet specifications and are held in excess of goal and (2) do not meet specifications and are held in excess of goal. The D-1 report excludes chromium materials that are committed and awaiting shipment.

Source: Defense Logistics Agency, DLA Strategic Materials.

TABLE 4
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND METAL¹

Period	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)
2013:							
July	363	\$209	475	241	\$730	88	\$1,970
August	210	148	212	105	342	61	1,510
September	82	114	375	153	537	104	1,790
October	130	129	357	214	717	30	862
November	253	122	365	203	607	132	1,950
December	233	157	308	157	514	39	990
January–December ⁴	8,530	3,040	4,850	2,500	7,300	856	19,000
2014:							
January	221	154	367	176	711	53	1,470
February	427	203	445	174	691	45	1,210
March	322	157	358	194	586	53	2,140
April	1,050	467	247	141	392	63	2,250
May	503	321	394	238	810	114	3,050
June	553	304	594	262	814	62	1,590
July	281	1,070	485	256	955	46	1,140
January–July ⁴	3,360	2,680	2,890	1,440	4,960	435	12,800

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)

	2013		2014	
	January– December ²	June	July	January– July ²
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	6,380	--	5	27
Chromic oxide content	1,610	--	2	6
More than 40% but less than 46% chromic oxide:				
Gross weight	68,400	10,700	--	42,600
Chromic oxide content	30,800	4,910	--	19,500
46% or more chromic oxide:				
Gross weight	98,400	20,000	3,110	37,400
Chromic oxide content	46,700	10,200	1,760	18,700
Total, all grades:				
Gross weight	173,000	30,700	3,110	80,000
Chromic oxide content	79,100	15,100	1,770	38,200
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	36,500	2,660	5,120	27,000
Chromium content	24,800	1,850	3,500	18,500
More than 0.5% but not more than 3% carbon:				
Gross weight	13,800	4,520	--	8,150
Chromium content	9,410	3,160	--	5,650
Total, low-carbon:				
Gross weight	50,300	7,180	5,120	35,200
Chromium content	34,200	5,010	3,500	24,100
Medium-carbon: ⁴				
Gross weight	370	--	--	30
Chromium content	210	--	--	17
High-carbon: ⁵				
Gross weight	416,000	55,100	39,500	329,000
Chromium content	227,000	31,200	19,800	179,000
Total, all grades:				
Gross weight	466,000	62,300	44,600	364,000
Chromium content	262,000	36,200	23,300	203,000
Chromium metal:				
Unwrought powders	3,350	439	322	2,410
Waste and scrap	70	9	4	33
Other than waste and scrap and unwrought powders	10,200	724	1,070	7,950
Total, all grades	13,700	1,170	1,400	10,400

-- 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 2014, 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	198	129	\$287	1,110	714	\$1,680
Brazil	513	258	450	3,040	1,550	2,600
Colombia	--	--	--	21	14	34
Germany	--	--	--	299	208	500
India	757	465	883	5,150	3,150	5,980
Kazakhstan	240	167	412	53,800	37,300	71,100
Latvia	--	--	--	440	307	770
Oman	155	94	193	155	94	193
Russia	324	222	513	5,890	3,870	7,690
South Africa	35,800	17,600	33,400	231,000	114,000	216,000
Sweden	--	--	--	5,050	3,360	9,130
Turkey	--	--	--	15,600	10,100	22,400
Zimbabwe	1,560	862	1,710	7,630	4,190	7,950
Total	39,500	19,800	37,900	329,000	179,000	347,000
Medium-carbon ferrochromium:⁵						
Belgium	--	--	--	28	15	15
China	--	--	--	2	2	4
Total	--	--	--	30	17	19
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	--	--	--	108	66	265
Kazakhstan	--	--	--	3,510	2,450	8,640
Poland	--	--	--	41	23	75
Russia	--	--	--	4,490	3,110	11,700
Total	--	--	--	8,150	5,650	20,700
Not more than 0.5% carbon:						
Brazil	--	--	--	714	442	1,720
China	--	--	--	102	65	407
Germany	526	370	2,120	3,990	2,800	15,600
India	--	--	--	83	56	468
Japan	319	223	1,310	1,110	772	4,270
Kazakhstan	--	--	--	5,020	3,470	12,500
Mexico	--	--	--	36	23	236
Russia	4,180	2,850	11,500	14,900	10,200	41,500
South Africa	60	37	154	643	380	1,460
Sweden	--	--	--	1	1	3
Turkey	38	26	130	377	268	1,240
Total	5,120	3,500	15,200	27,000	18,500	79,500
All grades:						
Albania	198	129	287	1,110	714	1,680
Belgium	--	--	--	28	15	15
Brazil	513	258	450	3,860	2,060	4,590
China	--	--	--	104	67	412
Colombia	--	--	--	21	14	34
Germany	526	370	2,120	4,290	3,010	16,100
India	757	465	883	5,230	3,210	6,450
Japan	319	223	1,310	1,110	772	4,270
Kazakhstan	240	167	412	62,300	43,200	92,300
Latvia	--	--	--	440	307	770
Mexico	--	--	--	36	23	236
Oman	155	94	193	155	94	193
Poland	--	--	--	41	23	75
Russia	4,500	3,070	12,000	25,300	17,200	61,000
South Africa	35,800	17,700	33,600	232,000	114,000	218,000
Sweden	--	--	--	5,050	3,360	9,130
Turkey	38	26	130	16,000	10,400	23,600
Zimbabwe	1,560	862	1,710	7,630	4,190	7,950
Total	44,600	23,300	53,100	364,000	203,000	447,000

See footnotes at end of table.

TABLE 6—continued
 U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2014, 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 2014, 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:				
Austria	--	--	(4)	\$2
Belgium	--	--	93	1,330
China	250	\$2,560	1,560	16,200
France	57	638	328	4,310
Germany	5	77	22	637
India	--	--	19	206
Japan	--	--	1	126
Korea, Republic of	--	--	(4)	3
Russia	--	--	220	1,830
Sweden	--	--	(4)	27
Taiwan	--	--	(4)	13
United Kingdom	11	259	166	2,470
Total	322	3,530	2,410	27,100
Waste and scrap:				
Brazil	--	--	6	32
France	1	31	1	31
Germany	--	--	11	114
Japan	--	--	1	21
Singapore	1	19	4	63
Taiwan	--	--	1	5
United Kingdom	2	8	9	104
Total	4	59	33	372
Other than waste and scrap and unwrought powders:				
Canada	14	1,100	125	10,200
China	235	1,960	1,590	12,600
France	265	2,840	2,330	24,900
Germany	8	331	37	1,250
Japan	(4)	10	10	496
Jordan	(4)	4	(4)	4
Malaysia	--	--	(4)	8
New Zealand	--	--	(4)	10
Russia	359	2,960	2,440	20,000
Spain	--	--	47	349
Taiwan	--	--	1	14
United Kingdom	192	2,180	1,370	14,900
Total	1,070	11,400	7,950	84,700
All grades:				
Austria	--	--	(4)	2
Belgium	--	--	93	1,330
Brazil	--	--	6	32
Canada	14	1,100	125	10,200
China	485	4,520	3,150	28,700
France	323	3,510	2,660	29,200
Germany	12	408	70	2,000
India	--	--	19	206
Japan	(4)	10	12	643
Jordan	(4)	4	(4)	4
Korea, Republic of	--	--	(4)	3
Malaysia	--	--	(4)	8
New Zealand	--	--	(4)	10
Russia	359	2,960	2,660	21,800
Singapore	1	19	4	63
Spain	--	--	47	349
Sweden	--	--	(4)	27
Taiwan	--	--	2	32
United Kingdom	205	2,450	1,550	17,500
Total	1,400	15,000	10,400	112,000

See footnotes at end of table.

TABLE 7—continued
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2014, 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 2014¹

Stainless steel product	July		January–July ²	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
Exports:				
Ingot	1,310	\$9,670	24,000	\$78,100
Flat-rolled (width > 600 mm)	50,800	131,000	268,000	751,000
Flat-rolled (width < 600 mm)	8,530	31,800	57,700	219,000
Bars and rods in irregular coils	1,430	4,090	7,040	21,500
Other bars and rods	3,190	23,300	23,600	190,000
Wire	679	8,930	5,220	64,100
Tubes, pipes, hollow profiles	3,690	36,400	28,100	253,000
Total	69,600	245,000	414,000	1,580,000
Stainless steel scrap	49,900	60,700	322,000	388,000
Grand total	120,000	305,000	735,000	1,970,000
Imports:				
Ingot	12,500	38,100	83,900	235,000
Flat-rolled (width > 600 mm)	31,900	91,500	180,000	477,000
Flat-rolled (width < 600 mm)	4,660	18,500	29,200	115,000
Bars and rods in irregular coils	3,110	10,900	18,700	64,600
Other bars and rods	526	3,320	2,640	16,200
Wire	1,010	5,760	5,460	31,800
Tubes, pipes, hollow profiles	11,200	79,100	65,800	485,000
Total	64,900	247,000	385,000	1,420,000
Stainless steel scrap	31,900	46,600	208,000	270,000
Grand total	96,800	294,000	594,000	1,700,000

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

²Export 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.