



Mineral Industry Surveys

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CHROMIUM IN APRIL 2013

On the basis of gross weight, consumption of chromium ferroalloys and metal in April 2013 increased slightly compared with consumption in March 2013. Consumption in April 2013 decreased slightly compared with consumption in the April 2012.

Included in this Mineral Industry Surveys are U.S. salient

chromium statistics, U.S. Government stockpile inventory of chromium materials in April 2013, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of April 2013, and U.S. foreign trade data for selected chromium-containing materials in April 2013.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2012	2013			
	January– December ²	February	March	April	January– April ²
Production, stainless steel ³	1,980,000	159,000	148,000	168,000	659,000
Components of U.S. supply:					
Stainless steel scrap receipts	858,000	71,900	73,600	72,400	294,000
Stainless steel scrap consumption	1,300,000	107,000	108,000	109,000	434,000
Imports for consumption:					
Chromite ore	277,000	6,000	6,050	2,990	21,100
Ferrochromium:					
More than 4% carbon	449,000	36,000	25,800	28,100	120,000
More than 3% but not more than 4% carbon	411	138	60	133	330
More than 0.5% but not more than 3% carbon	7,580	3,460	80	120	5,750
Not more than 0.5% carbon	43,900	2,510	1,790	3,840	11,900
Ferrochromium silicon	25,800	3,610	--	--	3,610
Total ferroalloy imports	526,000	45,700	27,800	32,200	141,000
Chromium metal ⁴	15,300	1,120	1,940	1,410	5,140
Stainless steel	668,000	41,400	46,100	50,800	189,000
Stainless steel scrap	155,000	15,300	13,500	13,500	57,300
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	423,000	33,900	35,900	36,100	141,000
Exports:					
Chromite ore	21,200	5,600	191	287	6,800
Chromium ferroalloys:					
High-carbon ferrochromium	4,460	538	481	607	1,800
Low-carbon ferrochromium	768	42	3	47	92
Ferrochromium silicon	64	--	--	9	9
Total ferroalloy exports	5,300	580	484	663	1,900
Chromium metal	462	43	56	100	242
Stainless steel	590,000	47,800	45,400	52,000	199,000
Stainless steel scrap	624,000	54,000	53,500	60,800	219,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	9,240 ^r	10,500	9,590	10,200	10,200
Government stockpile:					
Chromium ferroalloys	144,000	141,000	140,000	139,000	139,000
Chromium metal	4,090	4,090	4,090	4,090	4,090

^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)

	2013		
	March	April	January– April ³
Consumption by end use:			
Steel:			
Carbon steel	198	169	730
High-strength low-alloy steel	151	151	595
Stainless and heat-resisting steel	32,200	32,100	126,000
Unspecified steel ⁴	2,770	3,020	11,500
Superalloys	492	502	1,990
Other alloys and uses ⁵	110	114	439
Total	35,900	36,100	141,000
Total, chromium content	20,600	20,700	81,000
Consumption by material:			
Low-carbon ferrochromium	1,730	1,990	7,190
High-carbon ferrochromium	31,600	31,500	124,000
Ferrochromium silicon	W	W	W
Chromium metal	220	228	900
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	35,900	36,100	141,000
Total, chromium content	20,600	20,700	81,000
Consumer stocks:			
Low-carbon ferrochromium	1,670	1,770	1,770
High-carbon ferrochromium	7,160	7,670	7,670
Ferrochromium silicon	W	W	W
Chromium metal	150	149	149
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	9,590	10,200	10,200
Total, chromium content	5,680	6,040	6,040

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	
2012:			
April	95,200	52,200	4,090
May	95,200	52,000	4,090
June	95,200	52,000	4,090
July	95,200	51,500	4,090
August	95,200	51,500	4,090
September	95,200	50,800	4,090
October	95,200	50,500	4,090
November	95,200	50,000	4,090
December	94,300	49,400	4,090
2013:			
January	93,400	48,400	4,090
February	92,500	48,100	4,090
March	92,000	47,600	4,090
April	91,200	47,600	4,090

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 contact. 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)
2012:							
April	1,290	\$1,090	479	277	\$641	53	\$1,210
May	673	377	460	251	664	46	1,170
June	11,400	3,550	528	315	687	34	1,240
July	886	538	309	155	498	43	1,240
August	1,410	1,030	105	43	148	48	1,250
September	605	427	503	268	788	36	1,090
October	542	330	442	221	644	66	1,330
November	1,210	782	893	332	1,050	19	746
December	1,300	644	680	271	910	18	630
January–December ⁴	21,200	9,870	5,300	2,610	7,250	462	13,000
2013:							
January	725	549	171	78	239	42	984
February	5,600	936	580	280	667	43	1,390
March	191	173	484	234	584	56	1,280
April	287	169	663	390	1,120	100	2,360
January–April ⁴	6,800	1,830	1,900	983	2,610	242	6,010

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)

	2012		2013	
	January– December ²	March	April	January– April ²
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	--	--	--	--
Chromic oxide content	--	--	--	--
More than 40% but less than 46% chromic oxide:				
Gross weight	29,000	50	1,500	3,050
Chromic oxide content	12,900	21	663	1,350
46% or more chromic oxide:				
Gross weight	248,000	6,000	1,490	18,000
Chromic oxide content	120,000	2,870	738	8,800
Total, all grades:				
Gross weight	277,000	6,050	2,990	21,100
Chromic oxide content	133,000	2,900	1,400	10,100
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	43,900	1,790	3,840	11,900
Chromium content	30,300	1,250	2,620	8,030
More than 0.5% but not more than 3% carbon:				
Gross weight	7,580	80	120	5,750
Chromium content	5,150	59	65	3,860
Total, low-carbon:				
Gross weight	51,500	1,870	3,960	17,700
Chromium content	35,500	1,310	2,680	11,900
Medium-carbon: ⁴				
Gross weight	411	60	133	330
Chromium content	222	44	71	189
High-carbon: ⁵				
Gross weight	449,000	25,800	28,100	120,000
Chromium content	257,000	13,100	14,600	65,300
Total, all grades:				
Gross weight	500,000	27,800	32,200	138,000
Chromium content	293,000	14,500	17,300	77,300
Chromium metal:				
Unwrought powders	3,060	406	319	1,230
Waste and scrap	415	9	5	21
Other than waste and scrap and unwrought powders	11,800	1,530	1,080	3,880
Total, all grades	15,300	1,940	1,410	5,140

-- 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 2013, 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	--	--	--	468	318	\$649
India	1,320	827	\$1,870	1,320	827	1,870
Kazakhstan	240	166	400	20,000	13,800	23,600
Russia	1,190	809	1,600	6,130	4,030	7,940
South Africa	23,900	11,900	21,000	86,600	42,900	76,200
Sweden	723	470	1,150	3,560	2,350	6,590
Turkey	667	441	845	1,600	1,040	1,960
Total	28,100	14,600	26,900	120,000	65,300	119,000
Medium-carbon ferrochromium:⁵						
Belgium	--	--	--	60	44	31
Russia	133	71	71	270	146	145
Total	133	71	71	330	189	176
Low-carbon ferrochromium:⁵						
More than 0.5% but not more than 3% carbon:						
Germany	--	--	--	1,910	1,270	2,780
Kazakhstan	--	--	--	1,340	921	3,480
Russia	--	--	--	2,080	1,440	5,640
South Africa	120	65	247	420	228	880
Total	120	65	247	5,750	3,860	12,800
Not more than 0.5% carbon:						
Brazil	--	--	--	60	37	147
China	--	--	--	20	13	106
France	1	1	4	1	1	4
Germany	380	266	1,660	1,520	1,070	6,570
Japan	120	84	535	534	372	2,460
Kazakhstan	--	--	--	405	106	585
Russia	2,700	1,820	7,760	7,950	5,410	23,100
South Africa	100	63	270	100	63	270
Turkey	545	388	1,780	1,350	961	4,360
Total	3,840	2,620	12,000	11,900	8,030	37,600
All grades:						
Albania	--	--	--	468	318	649
Belgium	--	--	--	60	44	31
Brazil	--	--	--	60	37	147
China	--	--	--	20	13	106
France	1	1	4	1	1	4
Germany	380	266	1,660	3,430	2,340	9,340
India	1,320	827	1,870	1,320	827	1,870
Japan	120	84	535	534	372	2,460
Kazakhstan	240	166	400	21,800	14,900	27,600
Russia	4,010	2,700	9,430	16,400	11,000	36,800
South Africa	24,200	12,000	21,500	87,200	43,200	77,300
Sweden	723	470	1,150	3,560	2,350	6,590
Turkey	1,210	829	2,630	2,950	2,000	6,320
Total	32,200	17,300	39,200	138,000	77,300	169,000

-- 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 2013, 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:				
Belgium	19	\$285	95	\$1,430
China	209	2,240	586	7,300
France	1	17	153	2,230
Germany	--	--	10	331
Korea, Republic of	--	--	(4)	2
Russia	80	780	298	3,330
United Kingdom	10	291	89	1,360
Total	319	3,620	1,230	16,000
Waste and scrap:				
Canada	3	17	10	57
Japan	--	--	1	7
Singapore	2	6	2	6
United Kingdom	--	--	8	55
Total	5	23	21	125
Other than waste and scrap and unwrought powders:				
Canada	--	--	(4)	11
China	149	1,610	682	7,220
France	136	1,980	783	10,300
Germany	20	226	42	638
Japan	1	62	1	62
Liechtenstein	(4)	6	(4)	27
Netherlands	--	--	3	29
Russia	401	3,850	1,460	14,100
Spain	--	--	9	43
Switzerland	(4)	3	(4)	3
United Kingdom	377	4,470	902	11,000
Total	1,080	12,200	3,880	43,400
All grades:				
Belgium	19	285	95	1,430
Canada	3	17	11	68
China	358	3,850	1,270	14,500
France	137	2,000	936	12,500
Germany	20	226	52	970
Japan	1	62	2	69
Korea, Republic of	--	--	(4)	2
Liechtenstein	(4)	6	(4)	27
Netherlands	--	--	3	29
Russia	481	4,630	1,760	17,400
Singapore	2	6	2	6
Spain	--	--	9	43
Switzerland	(4)	3	(4)	3
United Kingdom	386	4,760	999	12,400
Total	1,410	15,800	5,140	59,500

-- 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 2013¹

Stainless steel product	April		January–April ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	8,220	\$10,300	28,100	\$44,800
Flat-rolled (width > 600 mm)	27,700	82,300	108,000	331,000
Flat-rolled (width < 600 mm)	7,000	26,700	27,400	108,000
Bars and rods in irregular coils	752	2,280	2,710	8,550
Other bars and rods	3,650	26,500	14,000	106,000
Wire	1,260	8,660	4,790	33,500
Tubes, pipes, hollow profiles	3,450	31,500	14,000	120,000
Total	52,000	188,000	199,000	752,000
Stainless steel scrap	60,800	66,300	219,000	254,000
Grand total	113,000	255,000	418,000	1,010,000
Imports:				
Ingot	9,740	30,000	36,000	111,000
Flat-rolled (width > 600 mm)	24,200	66,900	93,200	257,000
Flat-rolled (width < 600 mm)	3,950	15,700	13,000	54,200
Bars and rods in irregular coils	2,380	8,940	9,210	32,800
Other bars and rods	261	1,650	1,510	9,450
Wire	774	4,660	2,220	14,700
Tubes, pipes, hollow profiles	9,520	71,300	33,800	272,000
Total	50,800	199,000	189,000	751,000
Stainless steel scrap	13,500	16,200	57,300	74,900
Grand total	64,300	215,000	246,000	826,000

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.