

Mineral Industry Surveys

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CHROMIUM IN MARCH 2014

On the basis of gross weight, consumption of chromium ferroalloys and metal in March 2014 increased by 5% compared with that of February 2014. Consumption in March 2014 increased by 3% compared with that of March 2013.

Included in this Mineral Industry Surveys are U.S. salient chromium statistics, U.S. Government stockpile inventory of

chromium materials in March 2014, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of March 2014, and U.S. foreign trade data for selected chromium-containing materials in March 2014.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2013	2014			January– March ²
	January– December ²	January	February	March	
Production, stainless steel ³	2,030,000	199,000	169,000	189,000	557,000
Components of U.S. supply:					
Stainless steel scrap receipts	882,000 ^r	75,400 ^r	72,700 ^r	73,200	221,000
Stainless steel scrap consumption	1,300,000	109,000	107,000	110,000	326,000
Imports for consumption:					
Chromite ore	173,000	2,870	31,000	3,520	37,400
Ferrochromium:					
More than 4% carbon	416,000	44,600	59,900	18,900	123,000
More than 3% but not more than 4% carbon	370	--	--	28	28
More than 0.5% but not more than 3% carbon	13,800	1,940	41	54	2,030
Not more than 0.5% carbon	36,500	6,100	2,360	4,000	12,500
Ferrochromium silicon	12,000	4,610	--	--	4,610
Total ferroalloy imports	478,000	57,300	62,300	23,000	143,000
Chromium metal ⁴	13,700	1,120	1,130	1,350	3,590
Stainless steel	570,000	48,000	46,100	52,800	147,000
Stainless steel scrap	226,000	23,200	29,400	28,900	81,500
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	422,000	36,500	35,000	36,800	108,000
Exports:					
Chromite ore	8,530	221	427	322	970
Chromium ferroalloys:					
High-carbon ferrochromium	4,460	177	383	318	878
Low-carbon ferrochromium	379	190	62	39	291
Ferrochromium silicon	16	--	--	--	--
Total ferroalloy exports	4,850	367	445	358	1,170
Chromium metal	856	53	45	53	150
Stainless steel	603,000	47,400	50,200	56,300	154,000
Stainless steel scrap	644,000	40,900	41,100	42,900	125,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	9,690	10,200	10,400	9,460	9,460
Government stockpile:					
Chromium ferroalloys	129,000	126,000	124,000	123,000	123,000
Chromium metal	4,090	4,090	4,090	4,040	4,040

^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)

	2014		
	February	March	January– March ³
Consumption by end use:			
Steel:			
Carbon steel	229	210	679
High-strength low-alloy steel	153	154	455
Stainless and heat-resisting steel	30,800	32,600	95,600
Unspecified steel ⁴	3,190	3,330	9,830
Superalloys	474 ^r	477	1,460
Other alloys and uses ⁵	91	107	290
Total	35,000	36,800	108,000
Total, chromium content	20,100	21,000	62,000
Consumption by material:			
Low-carbon ferrochromium	1,990	2,010	6,070
High-carbon ferrochromium	30,500	32,200	94,600
Ferrochromium silicon	W	W	W
Chromium metal	204	199	632
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	35,000	36,800	108,000
Total, chromium content	20,100	21,000	62,000
Consumer stocks:			
Low-carbon ferrochromium	1,540	1,530	1,530
High-carbon ferrochromium	8,080	7,210	7,210
Ferrochromium silicon	W	W	W
Chromium metal	82	88	88
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,400	9,460	9,460
Total, chromium content	6,080	5,520	5,520

^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, gross weight)

Period	Chromium ferroalloys		Chromium metal
	High-carbon ferro-chromium	Low-carbon ferro-chromium	
2013:			
March	92,000	47,600	4,090
April	91,200	47,600	4,090
May	90,200	47,200	4,090
June	90,200	46,500	4,090
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

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:							
March	191	\$173	484	234	\$584	56	\$1,280
April	287	169	663	390	1,120	100	2,360
May	151	106	444	226	507	71	1,690
June	308	225	417	217	738	89	2,220
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
January–March ⁴	970	513	1,170	544	1,990	150	4,820

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	February	March	January– March ²
Chromite ore:				
Not more than 40% chromic oxide:				
gross weight	6,380	--	--	--
Chromic oxide content	1,610	--	--	--
More than 40% but less than 46% chromic oxide:				
gross weight	68,400	25,900	1,840	30,200
Chromic oxide content	30,800	11,900	811	13,800
46% or more chromic oxide:				
gross weight	98,400	5,100	1,680	7,160
Chromic oxide content	46,700	2,360	797	3,490
Total, all grades:				
gross weight	173,000	31,000	3,520	37,400
Chromic oxide content	79,100	14,300	1,610	17,300
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
gross weight	36,500	2,360	4,000	12,500
Chromium content	24,800	1,600	2,710	8,520
More than 0.5% but not more than 3% carbon:				
gross weight	13,800	41	54	2,030
Chromium content	9,410	23	32	1,390
Total, low-carbon:				
gross weight	50,300	2,400	4,060	14,500
Chromium content	34,200	1,620	2,740	9,910
Medium-carbon: ⁴				
gross weight	370	--	28	28
Chromium content	210	--	15	15
High-carbon: ⁵				
gross weight	416,000	59,900	18,900	123,000
Chromium content	227,000	29,600	10,500	67,700
Total, all grades:				
gross weight	466,000	62,300	23,000	138,000
Chromium content	262,000	31,300	13,300	77,600
Chromium metal:				
Unwrought powders	3,350	294	243	828
Waste and scrap	70	3	--	3
Other than waste and scrap and unwrought powders	10,200	829	1,110	2,760
Total, all grades	13,700	1,130	1,350	3,590

-- 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	March			January–March 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	338	213	\$521	338	213	\$521
Brazil	494	237	408	494	237	408
Germany	--	--	--	299	208	500
India	1,340	817	1,520	1,730	1,060	1,960
Kazakhstan	240	166	430	27,400	18,900	34,200
Latvia	440	307	770	440	307	770
Russia	1,250	858	1,790	2,470	1,670	3,230
South Africa	10,200	5,110	9,300	81,600	40,000	74,200
Sweden	--	--	--	153	103	306
Turkey	2,620	1,670	3,460	3,450	2,210	4,590
Zimbabwe	2,020	1,120	2,100	5,060	2,810	5,260
Total	18,900	10,500	20,300	123,000	67,700	126,000
Medium-carbon ferrochromium:⁵						
Belgium	28	15	15	28	15	15
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	54	32	131	108	66	265
Kazakhstan	--	--	--	1,010	697	2,440
Poland	--	--	--	41	23	75
Russia	--	--	--	872	602	2,220
Total	54	32	131	2,030	1,390	5,000
Not more than 0.5% carbon:						
Brazil	200	125	491	300	186	725
China	--	--	--	62	39	210
Germany	840	591	3,240	1,600	1,120	6,100
India	--	--	--	19	12	124
Japan	10	7	43	311	215	1,050
Kazakhstan	--	--	--	4,750	3,280	11,900
Mexico	--	--	--	17	11	103
Russia	2,600	1,780	7,240	4,940	3,380	13,900
South Africa	309	180	681	423	251	962
Sweden	--	--	--	1	1	3
Turkey	39	27	123	39	27	123
Total	4,000	2,710	11,800	12,500	8,520	35,200
All grades:						
Albania	338	213	521	338	213	521
Belgium	28	15	15	28	15	15
Brazil	748	394	1,030	902	490	1,400
China	--	--	--	62	39	210
Germany	840	591	3,240	1,900	1,330	6,600
India	1,340	817	1,520	1,750	1,070	2,080
Japan	10	7	43	311	215	1,050
Kazakhstan	240	166	430	33,200	22,900	48,500
Latvia	440	307	770	440	307	770
Mexico	--	--	--	17	11	103
Poland	--	--	--	41	23	75
Russia	3,850	2,640	9,030	8,280	5,650	19,400
South Africa	10,500	5,290	9,980	82,000	40,200	75,100
Sweden	--	--	--	154	104	309
Turkey	2,660	1,700	3,580	3,490	2,240	4,720
Zimbabwe	2,020	1,120	2,100	5,060	2,810	5,260
Total	23,000	13,300	32,300	138,000	77,600	166,000

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	March			January–March 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	March		January–March ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
Austria	--	--	(4)	\$2
Belgium	--	--	36	512
China	126	\$1,180	491	5,480
France	57	815	135	1,860
Germany	12	338	12	365
Japan	--	--	1	126
Russia	20	170	60	506
Sweden	(4)	27	(4)	27
United Kingdom	28	330	92	1,240
Total	243	2,860	828	10,100
Waste and scrap:				
Japan	--	--	(4)	6
Singapore	--	--	2	44
Taiwan	--	--	1	5
Total	--	--	3	56
Other than waste and scrap and unwrought powders:				
Canada	8	629	22	1,940
China	166	1,370	506	4,510
France	324	3,640	905	9,720
Germany	8	170	9	307
Japan	1	58	2	82
New Zealand	(4)	8	(4)	8
Russia	380	3,090	809	6,580
Spain	28	218	47	349
Taiwan	1	8	1	11
United Kingdom	189	1,920	462	4,850
Total	1,110	11,100	2,760	28,400
All grades:				
Austria	--	--	(4)	2
Belgium	--	--	36	512
Canada	8	629	22	1,940
China	291	2,550	997	9,990
France	381	4,450	1,040	11,600
Germany	20	508	21	671
Japan	1	58	3	214
New Zealand	(4)	8	(4)	8
Russia	400	3,260	869	7,090
Singapore	--	--	2	44
Spain	28	218	47	349
Sweden	(4)	27	(4)	27
Taiwan	1	8	1	16
United Kingdom	218	2,250	554	6,090
Total	1,350	14,000	3,590	38,500

-- 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 2014¹

Stainless steel product	March		January–March ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	1,530	\$12,300	4,300	\$30,700
Flat-rolled (width > 600 mm)	36,900	118,000	101,000	305,000
Flat-rolled (width < 600 mm)	8,570	32,000	22,100	86,000
Bars and rods in irregular coils	911	3,070	2,860	8,990
Other bars and rods	3,380	31,100	9,900	79,300
Wire	757	8,920	2,080	25,000
Tubes, pipes, hollow profiles	4,210	37,600	11,300	104,000
Total	56,300	243,000	154,000	638,000
Stainless steel scrap	42,900	50,600	125,000	141,000
Grand total	99,200	294,000	279,000	779,000
Imports:				
Ingot	13,000	35,400	32,600	86,200
Flat-rolled (width > 600 mm)	22,700	60,300	67,800	173,000
Flat-rolled (width < 600 mm)	4,830	18,100	12,300	48,400
Bars and rods in irregular coils	2,380	8,110	6,660	22,300
Other bars and rods	418	2,580	1,090	6,150
Wire	617	4,250	2,070	12,200
Tubes, pipes, hollow profiles	8,860	83,300	24,400	199,000
Total	52,800	212,000	147,000	547,000
Stainless steel scrap	28,900	35,300	81,500	89,600
Grand total	81,700	247,000	228,000	637,000

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.