Mineral Industry Surveys

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CHROMIUM IN MAY 2014

On the basis of gross weight, consumption of chromium ferroalloys and metal in May 2014 increased slightly compared with that of April 2014. Consumption in May 2014 increased slightly compared with that of May 2013.

Included in this Mineral Industry Surveys are U.S. salient chromium statistics, U.S. Government stockpile inventory of chromium materials in May 2014, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of May 2014, and U.S. foreign trade data for selected chromium-containing materials in May 2014.

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TABLE 1
U.S. SALIENT CHROMIUM STATISTICS[1]

(Metric tons, gross weight)

	2013[p]	2014			
	January–December[2]	March	April	May	January–May[2]
Production, stainless steel[3]	2,030,000	189,000	195,000	196,000	947,000
Components of U.S. supply:					
Stainless steel scrap receipts	882,000	73,200	75,200	73,500	370,000
Stainless steel scrap consumption	1,300,000	110,000	109,000	108,000	543,000
Imports for consumption:					
Chromite ore	173,000	3,520	447	8,350	46,200
Ferrochromium:					
More than 4% carbon	416,000	18,900	48,000	63,100	235,000
More than 3% but not more than 4% carbon	370	28	2	--	30
More than 0.5% but not more than 3% carbon	13,800	54	1,600	--	3,630
Not more than 0.5% carbon	36,500	4,000	2,840	3,940	19,200
Ferrochromium silicon	12,000	--	5,160	--	9,770
Total ferroalloy imports	478,000	23,000	57,600	67,000	267,000
Chromium metal[4]	13,700	1,350	2,690	1,540	7,820
Stainless steel	570,000	52,800	58,600	58,900	265,000
Stainless steel scrap	226,000	28,900	28,800	32,700	143,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	422,000	36,800	36,100	36,600	181,000
Exports:					
Chromite ore	8,530	322	1,050	503	2,520
Chromium ferroalloys:					
High-carbon ferrochromium	4,460	318	239	335	1,450
Low-carbon ferrochromium	379	39	9	59	359
Ferrochromium silicon	16	--	--	--	--
Total ferroalloy exports	4,850	358	247	394	1,810
Chromium metal	856	53	63	114	327
Stainless steel	603,000	56,300	55,700	60,000	270,000
Stainless steel scrap	644,000	42,900	51,300	49,000	225,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	9,770	9,550 [r]	10,500 [r]	10,200	10,200
Government stockpile:					
Chromium ferroalloys	132,000	123,000	121,000	119,000	119,000
Chromium metal	4,090	4,040	4,040	4,000	4,000

[p]Preliminary. [r]Revised. -- Zero.

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

[2]May include revised data that are not broken out by specific month(s).

[3]Data 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.

[4]Includes 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		
	April	May	January–May[3]
Consumption by end use:			
Steel:			
Carbon steel	200	188	1,050
High-strength low-alloy steel	156	148	760
Stainless and heat-resisting steel	31,800	32,100	160,000
Unspecified steel[4]	3,430 r	3,640	16,900
Superalloys	433 r	424	2,170
Other alloys and uses[5]	89	95	468
Total	36,100	36,600	181,000
Total, chromium content	20,700	20,900	103,000
Consumption by material:			
Low-carbon ferrochromium	1,990	2,000	9,920
High-carbon ferrochromium	31,600 r	32,000	158,000
Ferrochromium silicon	W	W	W
Chromium metal	162 r	160	850
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	36,100	36,600	181,000
Total, chromium content	20,700	20,900	103,000
Consumer stocks:			
Low-carbon ferrochromium	1,560 r	1,560	1,560
High-carbon ferrochromium	8,040	7,750	7,750
Ferrochromium silicon	W	W	W
Chromium metal	49	52	52
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,500 r	10,200	10,200
Total, chromium content	6,070 r	5,920	5,920

rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes estimates.
[3]May include revised data that are not broken out by specific month(s).
[4]Includes electrical, full alloy, tool, and unspecified steel end uses.
[5]Includes 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:			
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
April	79,500	41,700	4,040
May	77,600	41,100	4,000

[1]Data are rounded to no more than three significant digits.
[2]These 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 METAL[1]

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:							
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
April	1,050	467	247	141	392	63	2,250
May	503	321	394	238	810	114	3,050
January–May[4]	2,520	1,300	1,810	923	3,190	327	10,100

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes low- and high-carbon ferrochromium and ferrochromium silicon.
[3]Includes chromium metal, waste and scrap, and unwrought powders.
[4]May 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 METAL[1]

(Metric tons)

	2013	2014		
	January–December[2]	April	May	January–May[2]
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	6,380	22	--	22
Chromic oxide content	1,610	4	--	4
More than 40% but less than 46% chromic oxide:				
Gross weight	68,400	192	1,470	31,900
Chromic oxide content	30,800	86	652	14,500
46% or more chromic oxide:				
Gross weight	98,400	233	6,880	14,300
Chromic oxide content	46,700	111	3,180	6,780
Total, all grades:				
Gross weight	173,000	447	8,350	46,200
Chromic oxide content	79,100	201	3,830	21,300
Ferrochromium:				
Low-carbon:[3]				
Not more than 0.5% carbon:				
Gross weight	36,500	2,840	3,940	19,200
Chromium content	24,800	1,920	2,680	13,100
More than 0.5% but not more than 3% carbon:				
Gross weight	13,800	1,600	--	3,630
Chromium content	9,410	1,100	--	2,490
Total, low-carbon:				
Gross weight	50,300	4,440	3,940	22,900
Chromium content	34,200	3,020	2,680	15,600
Medium-carbon:[4]				
Gross weight	370	2	--	30
Chromium content	210	2	--	17
High-carbon:[5]				
Gross weight	416,000	48,000	63,100	235,000
Chromium content	227,000	26,500	33,600	128,000
Total, all grades:				
Gross weight	466,000	52,400	67,000	257,000
Chromium content	262,000	29,600	36,300	143,000
Chromium metal:				
Unwrought powders	3,350	479	339	1,650
Waste and scrap	70	11	6	20
Other than waste and scrap and unwrought powders	10,200	2,200	1,190	6,160
Total, all grades	13,700	2,690	1,540	7,820

-- Zero.

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

[2]May include revised data that are not broken out by specific month(s).

[3]Ferrochromium containing not more than 3% carbon.

[4]Ferrochromium containing more than 3% carbon but not more than 4% carbon.

[5]Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2014, BY GRADE AND COUNTRY[1]

Grade and country	May			January–May[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	171	111	$258	510	324	$779
Brazil	1,030	536	894	2,530	1,300	2,150
Colombia	--	--	--	21	14	34
Germany	--	--	--	299	208	500
India	--	--	--	3,080	1,880	3,520
Kazakhstan	500	351	866	38,100	26,300	48,900
Latvia	--	--	--	440	307	770
Russia	--	--	--	4,070	2,680	5,240
South Africa	48,300	24,100	46,700	161,000	79,300	150,000
Sweden	760	513	1,500	3,440	2,260	6,000
Turkey	11,400	7,400	16,800	15,300	9,930	22,000
Zimbabwe	1,010	522	978	6,080	3,330	6,240
Total	63,100	33,600	67,900	235,000	128,000	246,000
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	--	--	--	1,610	1,110	3,910
Poland	--	--	--	41	23	75
Russia	--	--	--	1,870	1,290	4,840
Total	--	--	--	3,630	2,490	9,090
Not more than 0.5% carbon:						
Brazil	--	--	--	714	442	1,720
China	20	13	92	82	52	303
Germany	660	463	2,570	2,860	2,010	11,000
India	19	12	114	64	41	379
Japan	100	70	394	551	382	1,990
Kazakhstan	270	191	675	5,020	3,470	12,500
Mexico	--	--	--	36	23	236
Russia	2,730	1,840	7,530	9,110	6,210	25,500
South Africa	60	37	154	583	343	1,310
Sweden	--	--	--	1	1	3
Turkey	79	55	248	218	153	708
Total	3,940	2,680	11,800	19,200	13,100	55,700
All grades:						
Albania	171	111	258	510	324	779
Belgium	--	--	--	28	15	15
Brazil	1,030	536	894	3,350	1,810	4,140
China	20	13	92	84	54	307
Colombia	--	--	--	21	14	34
Germany	660	463	2,570	3,160	2,210	11,500
India	19	12	114	3,150	1,920	3,900
Japan	100	70	394	551	382	1,990
Kazakhstan	770	542	1,540	44,700	30,800	65,300
Latvia	--	--	--	440	307	770
Mexico	--	--	--	36	23	236
Poland	--	--	--	41	23	75
Russia	2,730	1,840	7,530	15,100	10,200	35,500
South Africa	48,300	24,200	46,800	161,000	79,700	152,000
Sweden	760	513	1,500	3,440	2,260	6,000
Turkey	11,400	7,450	17,000	15,500	10,100	22,700
Zimbabwe	1,010	522	978	6,080	3,330	6,240
Total	67,000	36,300	79,700	257,000	143,000	311,000

See footnotes at end of table.

TABLE 6—continued
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2014, BY GRADE AND COUNTRY[1]

Grade and country	May			January–May[2]		
	Gross weight (metric tons)	Chromium content (metric tons)	Value[3] (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value[3] (thousands)

-- Zero.

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

[2]May include revised data that are not broken out by specific month(s).

[3]Customs 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.

[4]Ferrochromium containing more than 4% carbon.

[5]Ferrochromium containing more than 3% carbon but not more than 4% carbon

[6]Ferrochromium 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 COUNTRY[1]

Grade and country	May		January–May[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	272	$2,710	977	10,200
France	34	454	233	3,120
Germany	(4)	21	13	396
Japan	--	--	1	126
Korea, Republic of	--	--	(4)	3
Russia	20	172	200	1,660
Sweden	--	--	(4)	27
Taiwan	(4)	13	(4)	13
United Kingdom	12	236	129	1,840
Total	339	3,610	1,650	18,700
Waste and scrap:				
Brazil	6	32	6	32
Germany	--	--	11	114
Japan	(4)	3	(4)	9
Singapore	--	--	2	44
Taiwan	--	--	1	5
Total	6	35	20	205
Other than waste and scrap and unwrought powders:				
Canada	38	3,100	80	6,660
China	130	1,080	1,140	8,590
France	401	4,210	1,910	20,400
Germany	7	126	22	574
Japan	2	80	6	257
Malaysia	--	--	(4)	8
New Zealand	(4)	2	(4)	10
Russia	308	2,510	1,920	15,700
Spain	--	--	47	349
Taiwan	--	--	1	11
United Kingdom	306	3,190	1,030	10,900
Total	1,190	14,300	6,160	63,400
All grades:				
Austria	--	--	(4)	2
Belgium	--	--	93	1,330
Brazil	6	32	6	32
Canada	38	3,100	80	6,660
China	402	3,790	2,120	18,800
France	435	4,660	2,140	23,500
Germany	7	147	46	1,080
Japan	2	84	7	392
Korea, Republic of	--	--	(4)	3
Malaysia	--	--	(4)	8
New Zealand	(4)	2	(4)	10
Russia	328	2,690	2,120	17,300
Singapore	--	--	2	44
Spain	--	--	47	349
Sweden	--	--	(4)	27
Taiwan	(4)	13	2	30
United Kingdom	318	3,420	1,160	12,800
Total	1,540	17,900	7,820	82,400

-- Zero.

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

[2]May include revised data that are not broken out by specific month(s).

[3]Customs 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.

[4]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2014[1]

Stainless steel product	May		January–May[2]	
	Gross weight (metric tons)	Value[2] (thousands)	Gross weight (metric tons)	Value[2] (thousands)
Exports:				
Ingot	1,690	$8,960	7,780	$52,800
Flat-rolled (width > 600 mm)	38,500	104,000	176,000	518,000
Flat-rolled (width < 600 mm)	9,810	35,900	40,600	154,000
Bars and rods in irregular coils	918	2,690	4,340	13,700
Other bars and rods	3,790	31,200	17,100	138,000
Wire	853	9,680	3,700	45,200
Tubes, pipes, hollow profiles	4,440	36,700	20,200	176,000
Total	60,000	229,000	270,000	1,100,000
Stainless steel scrap	49,000	66,600	225,000	266,000
Grand total	109,000	296,000	495,000	1,360,000
Imports:				
Ingot	11,400	32,600	58,600	160,000
Flat-rolled (width > 600 mm)	28,200	72,300	122,000	312,000
Flat-rolled (width < 600 mm)	4,410	17,100	21,000	82,100
Bars and rods in irregular coils	2,850	9,470	12,700	43,600
Other bars and rods	299	1,840	1,820	10,800
Wire	640	4,110	3,820	21,800
Tubes, pipes, hollow profiles	11,100	74,700	44,800	340,000
Total	58,900	212,000	265,000	969,000
Stainless steel scrap	32,700	48,300	143,000	173,000
Grand total	91,700	260,000	408,000	1,140,000

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