Mineral Industry Surveys

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CHROMIUM IN JANUARY 2014

On the basis of gross quantity, consumption of chromium ferroalloys and metal in January 2014 increased by 7% compared with that of December 2013. Consumption in January 2014 increased by 4% compared with that of January 2013.

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

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

(Metric tons, gross weight)

	2013			2014
	November	December	January–December[2]	January
Production, stainless steel[3]	184,000	161,000	2,030,000	199,000
Components of U.S. supply:				
Stainless steel scrap receipts	72,900	72,000	879,000	62,900
Stainless steel scrap consumption	112,000	109,000	1,320,000	94,200
Imports for consumption:				
Chromite ore	33,500	327	173,000	2,870
Ferrochromium:				
More than 4% carbon	36,300	5,870	416,000	44,600
More than 3% but not more than 4% carbon	--	--	370	--
More than 0.5% but not more than 3% carbon	--	--	13,800	1,940
Not more than 0.5% carbon	676	2,610	36,500	6,100
Ferrochromium silicon	--	--	12,000	4,610
Total ferroalloy imports	37,000	8,480	478,000	57,300
Chromium metal[4]	1,040	1,370	13,700	1,120
Stainless steel	45,200	44,500	570,000	48,000
Stainless steel scrap	25,100	25,800	226,000	23,200
Distribution of U.S. supply:				
Consumption, industry, chromium ferroalloys and metal	35,200	34,000	422,000	36,500
Exports:				
Chromite ore	253	233	8,530	221
Chromium ferroalloys:				
High-carbon ferrochromium	338	209	4,460	177
Low-carbon ferrochromium	27	92	379	190
Ferrochromium silicon	--	7	16	--
Total ferroalloy exports	365	308	4,850	367
Chromium metal	132	39	856	53
Stainless steel	46,100	36,200	603,000	47,400
Stainless steel scrap	52,400	53,600	644,000	40,900
Stocks at end of period:				
Consumer, industry, chromium ferroalloys and metal	9,840	9,700	9,700	10,300
Government stockpile:				
Chromium ferroalloys	132,000	129,000	129,000	126,000
Chromium metal	4,090	4,090	4,090	4,090

-- 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)

	2013		2014
	December	January–December[3]	January
Consumption by end use:			
Steel:			
Carbon steel	171	2,050	185
High-strength low-alloy steel	145	1,730	143
Stainless and heat-resisting steel	30,000	376,000	32,300
Unspecified steel[4]	3,180	35,900	3,310
Superalloys	501	5,690	505
Other alloys and uses[5]	97	1,230	99
Total	34,000	422,000	36,500
Total, chromium content	19,600	242,000	20,900
Consumption by material:			
Low-carbon ferrochromium	1,910	21,400	2,020
High-carbon ferrochromium	29,600	371,000	31,900
Ferrochromium silicon	W	W	W
Chromium metal	225	2,480	234
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	34,000	422,000	36,500
Total, chromium content	19,600	242,000	20,900
Consumer stocks:			
Low-carbon ferrochromium	1,530	1,530	1,490
High-carbon ferrochromium	7,400	7,400	7,990
Ferrochromium silicon	W	W	W
Chromium metal	102	102	94
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	9,700	9,700	10,300
Total, chromium content	5,700	5,690	5,980

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:			
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
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

[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:							
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
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

[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		
	December	January–December[2]	2014 January
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	2,500
Chromic oxide content	--	30,800	1,100
46% or more chromic oxide:			
Gross weight	327	98,400	374
Chromic oxide content	321	46,700	340
Total, all grades:			
Gross weight	327	173,000	2,870
Chromic oxide content	321	79,100	1,440
Ferrochromium:			
Low-carbon:[3]			
Not more than 0.5% carbon:			
Gross weight	2,610	36,500	6,100
Chromium content	1,780	24,800	4,220
More than 0.5% but not more than 3% carbon:			
Gross weight	--	13,800	1,940
Chromium content	--	9,410	1,330
Total, low-carbon:			
Gross weight	2,610	50,300	8,030
Chromium content	1,780	34,200	5,550
Medium-carbon:[4]			
Gross weight	--	370	--
Chromium content	--	210	--
High-carbon:[5]			
Gross weight	5,870	416,000	44,600
Chromium content	3,190	227,000	27,600
Total, all grades:			
Gross weight	8,480	466,000	52,700
Chromium content	4,970	262,000	33,100
Chromium metal:			
Unwrought powders	225	3,350	291
Waste and scrap	4	70	--
Other than waste and scrap and unwrought powders	1,140	10,200	829
Total, all grades	1,370	13,700	1,120

-- 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 CHROMITE ORE AND FERROCHROMIUM SILICON IN 2013, BY GRADE AND BY COUNTRY[1]

Grade and country	Gross weight (metric tons)	Cr_2O_3 (metric tons)	Chromium content (metric tons)	Value[2] (thousands)
Chromite ore:				
More than 40% but less than 46% chromic oxide:				
South Africa	68,400	30,800	XX	$14,200
Total	68,400	30,800	XX	14,200
46% or more chromic oxide:				
Belgium	12	11	XX	26
Canada	4	4	XX	22
Netherlands	3	2	XX	4
South Africa	98,400	46,700	XX	37,100
Total	98,400	46,700	XX	37,200
All grades:				
Belgium	12	11	XX	26
Canada	4	4	XX	22
Netherlands	3	2	XX	4
South Africa	173,000	79,100	XX	53,500
Total	173,000	79,100	XX	53,600
Ferrochromium silicon:				
Kazakhstan	10,500	XX	3,800	14,000
Russia	1,510	XX	434	2,170
Total	12,000	XX	4,230	16,200

XX Not applicable.

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

[2]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.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2014,
BY GRADE AND COUNTRY[1, 2]

Grade and country	January Gross weight (metric tons)	January Chromium content (metric tons)	January Value[3] (thousands)
High-carbon ferrochromium:[4]			
Germany	299	208	$500
Kazakhstan	27,200	18,700	33,800
Russia	1,020	670	1,170
South Africa	16,200	7,960	14,000
Total	44,600	27,600	49,400
Low-carbon ferrochromium:[5]			
More than 0.5% but not more than 3% carbon:			
Brazil	54	34	135
Kazakhstan	1,010	697	2,440
Russia	872	602	2,220
Total	1,940	1,330	4,790
Not more than 0.5% carbon:			
China	40	24	94
Germany	358	253	1,340
India	--	--	--
Japan	242	167	767
Kazakhstan	4,750	3,280	11,900
Russia	708	494	2,130
Total	6,100	4,220	16,200
All grades:			
Brazil	54	34	135
China	40	24	94
Germany	657	461	1,840
India	--	--	--
Japan	242	167	767
Kazakhstan	32,900	22,700	48,100
Russia	2,600	1,770	5,510
South Africa	16,200	7,960	14,000
Total	52,700	33,100	70,400

-- 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]Ferrochromium containing more than 4% carbon.

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

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2014, BY GRADE AND BY COUNTRY[1]

Grade and country	January Gross weight (metric tons)	January Value[2] (thousands)
Unwrought powders:		
Austria	(3)	$2
China	230	2,860
France	11	150
Russia	40	336
United Kingdom	10	255
Total	291	3,610
Other than waste and scrap and unwrought powders:		
Canada	5	594
China	153	1,580
France	220	2,470
Germany	(3)	17
Japan	(3)	12
Russia	343	2,790
Spain	9	64
Taiwan	(3)	4
United Kingdom	98	973
Total	829	8,510
All grades:		
Austria	(3)	2
Canada	5	594
China	383	4,440
France	230	2,620
Germany	(3)	17
Japan	(3)	12
Russia	383	3,130
Spain	9	64
Taiwan	(3)	4
United Kingdom	108	1,230
Total	1,120	12,100

-- Zero.

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

[2]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.

[3]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9

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

Stainless steel product	January Gross weight (metric tons)	January Value[2] (thousands)
Exports:		
Ingot	1,360	$7,570
Flat-rolled (width > 600 mm)	30,600	89,300
Flat-rolled (width < 600 mm)	6,780	27,400
Bars and rods in irregular coils	976	3,100
Other bars and rods	3,220	25,200
Wire	742	8,360
Tubes, pipes, hollow profiles	3,760	37,600
Total	47,400	199,000
Stainless steel scrap	40,900	44,200
Grand total	88,300	243,000
Imports:		
Ingot	9,170	22,000
Flat-rolled (width > 600 mm)	23,100	57,900
Flat-rolled (width < 600 mm)	3,750	15,500
Bars and rods in irregular coils	2,600	8,430
Other bars and rods	376	2,080
Wire	823	4,350
Tubes, pipes, hollow profiles	8,160	62,300
Total	48,000	172,000
Stainless steel scrap	23,200	22,000
Grand total	71,200	194,000

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