

Mineral Industry Surveys

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CHROMIUM IN FEBRUARY 2014

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

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

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

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2013		2014		
	December	January– December ²	January	February	January– February ²
Production, stainless steel ³	161,000	2,030,000	199,000	169,000	368,000
Components of U.S. supply:					
Stainless steel scrap receipts	72,000	878,000	75,100	72,400	147,000
Stainless steel scrap consumption	107,000	1,300,000	109,000	107,000	216,000
Imports for consumption:					
Chromite ore	327	173,000	2,870	31,000	33,900
Ferrochromium:					
More than 4% carbon	5,870	416,000	44,600	59,900	105,000
More than 3% but not more than 4% carbon	--	370	--	--	--
More than 0.5% but not more than 3% carbon	--	13,800	1,940	41	1,980
Not more than 0.5% carbon	2,610	36,500	6,100	2,360	8,460
Ferrochromium silicon	--	12,000	4,610	--	4,610
Total ferroalloy imports	8,480	478,000	57,300	62,300	120,000
Chromium metal ⁴	1,370	13,700	1,120	1,130	2,250
Stainless steel	44,500	570,000	48,000	46,100	94,100
Stainless steel scrap	25,800	226,000	23,200	29,400	52,600
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	34,000	422,000	36,500	35,000	71,500
Exports:					
Chromite ore	233	8,530	221	427	648
Chromium ferroalloys:					
High-carbon ferrochromium	209	4,460	177	383	560
Low-carbon ferrochromium	92	379	190	62	252
Ferrochromium silicon	7	16	--	--	--
Total ferroalloy exports	308	4,850	367	445	812
Chromium metal	39	856	53	45	98
Stainless steel	36,200	603,000	47,400	50,200	97,500
Stainless steel scrap	53,600	644,000	40,900	41,100	82,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	9,690	9,690	10,200	10,400	10,400
Government stockpile:					
Chromium ferroalloys	129,000	129,000	126,000	124,000	124,000
Chromium metal	4,090	4,090	4,090	4,090	4,090

-- 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		
	January	February	January– February ³
Consumption by end use:			
Steel:			
Carbon steel	240	229	469
High-strength low-alloy steel	149	153	302
Stainless and heat-resisting steel	32,300	30,800	63,100
Unspecified steel ⁴	3,310	3,190	6,500
Superalloys	505	473	979
Other alloys and uses ⁵	93	91	183
Total	36,500	35,000	71,500
Total, chromium content	20,900	20,100	41,000
Consumption by material:			
Low-carbon ferrochromium	2,080	1,990	4,070
High-carbon ferrochromium	31,900	30,500	62,400
Ferrochromium silicon	W	W	W
Chromium metal	3	3	5
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	36,500	35,000	71,500
Total, chromium content	20,900	20,100	41,000
Consumer stocks:			
Low-carbon ferrochromium	1,480	1,540	1,540
High-carbon ferrochromium	7,990	8,080	8,080
Ferrochromium silicon	W	W	W
Chromium metal	87	82	82
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,200	10,400	10,400
Total, chromium content	5,970	6,080	6,080

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:			
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
February	81,000	43,300	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 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:							
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
February	427	203	445	174	691	45	1,210
January–February ⁴	648	357	812	350	1,400	98	2,680

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	January	February	January– February 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	2,500	25,900	28,400
Chromic oxide content	30,800	1,100	11,900	13,000
46% or more chromic oxide:				
gross weight	98,400	374	5,100	5,480
Chromic oxide content	46,700	340	2,360	2,700
Total, all grades:				
gross weight	173,000	2,870	31,000	33,900
Chromic oxide content	79,100	1,440	14,300	15,700
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
gross weight	36,500	6,100	2,360	8,460
Chromium content	24,800	4,220	1,600	5,820
More than 0.5% but not more than 3% carbon:				
gross weight	13,800	1,940	41	1,980
Chromium content	9,410	1,330	23	1,360
Total, low-carbon:				
gross weight	50,300	8,030	2,400	10,400
Chromium content	34,200	5,550	1,620	7,170
Medium-carbon: ⁴				
gross weight	370	--	--	--
Chromium content	210	--	--	--
High-carbon: ⁵				
gross weight	416,000	44,600	59,900	105,000
Chromium content	227,000	27,600	29,600	57,200
Total, all grades:				
gross weight	466,000	52,700	62,300	115,000
Chromium content	262,000	33,100	31,300	64,400
Chromium metal:				
Unwrought powders	3,350	291	294	585
Waste and scrap	70	--	3	3
Other than waste and scrap and unwrought powders	10,200	829	829	1,660
Total, all grades	13,700	1,120	1,130	2,250

-- 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	February			January–February 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						
Germany	--	--	--	299	208	\$500
India	396	241	\$442	396	241	442
Kazakhstan	--	--	--	27,200	18,700	33,800
Russia	206	140	273	1,220	810	1,440
South Africa	55,300	26,900	50,900	71,400	34,900	64,900
Sweden	153	103	306	153	103	306
Turkey	830	545	1,130	830	545	1,130
Zimbabwe	3,040	1,690	3,160	3,040	1,690	3,160
Total	59,900	29,600	56,200	105,000	57,200	106,000
Low-carbon ferrochromium:⁵						
More than 0.5% but not more than 3% carbon:						
Brazil	--	--	--	54	34	135
Kazakhstan	--	--	--	1,010	697	2,440
Poland	41	23	75	41	23	75
Russia	--	--	--	872	602	2,220
Total	41	23	75	1,980	1,360	4,870
Not more than 0.5% carbon:						
Brazil	100	62	234	100	62	234
China	22	15	117	62	39	210
Germany	401	279	1,520	759	532	2,860
India	19	12	124	19	12	124
Japan	60	42	237	301	208	1,000
Kazakhstan	--	--	--	4,750	3,280	11,900
Mexico	17	11	103	17	11	103
Russia	1,630	1,110	4,560	2,340	1,600	6,680
South Africa	114	71	282	114	71	282
Sweden	1	1	3	1	1	3
Total	2,360	1,600	7,180	8,460	5,820	23,400
All grades:						
Brazil	100	62	234	154	96	369
China	22	15	117	62	39	210
Germany	401	279	1,520	1,060	740	3,360
India	415	253	565	415	253	565
Japan	60	42	237	301	208	1,000
Kazakhstan	--	--	--	32,900	22,700	48,100
Mexico	17	11	103	17	11	103
Poland	41	23	75	41	23	75
Russia	1,830	1,250	4,830	4,430	3,020	10,300
South Africa	55,400	27,000	51,200	71,500	35,000	65,200
Sweden	154	104	309	154	104	309
Turkey	830	545	1,130	830	545	1,130
Zimbabwe	3,040	1,690	3,160	3,040	1,690	3,160
Total	62,300	31,300	63,400	115,000	64,400	134,000

-- 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 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	February		January–February ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
Austria	--	--	(4)	\$2
Belgium	36	\$512	36	512
China	136	1,440	366	4,300
France	68	891	78	1,040
Germany	(4)	27	(4)	27
Japan	1	126	1	126
Russia	--	--	40	336
United Kingdom	54	658	64	914
Total	294	3,650	585	7,260
Waste and scrap:				
Japan	(4)	6	(4)	6
Singapore	2	44	2	44
Taiwan	1	5	1	5
Total	3	56	3	56
Other than waste and scrap and unwrought powders:				
Canada	8	718	13	1,310
China	187	1,560	340	3,140
France	362	3,610	582	6,080
Germany	1	119	1	136
Japan	(4)	12	1	24
Russia	86	706	429	3,500
Spain	9	67	18	131
Taiwan	--	--	(4)	4
United Kingdom	174	1,950	273	2,930
Total	829	8,750	1,660	17,300
All grades:				
Austria	--	--	(4)	2
Belgium	36	512	36	512
Canada	8	718	13	1,310
China	323	3,000	705	7,440
France	430	4,500	660	7,120
Germany	1	146	2	163
Japan	2	144	2	156
Russia	86	706	469	3,830
Singapore	2	44	2	44
Spain	9	67	18	131
Taiwan	1	5	1	9
United Kingdom	228	2,610	337	3,840
Total	1,130	12,500	2,250	24,600

-- 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	February		January–February ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	1,410	\$10,800	2,770	\$18,400
Flat-rolled (width > 600 mm)	33,900	97,000	64,400	186,000
Flat-rolled (width < 600 mm)	6,710	26,600	13,500	54,000
Bars and rods in irregular coils	967	2,810	1,940	5,920
Other bars and rods	3,290	22,900	6,510	48,200
Wire	582	7,750	1,320	16,100
Tubes, pipes, hollow profiles	3,320	28,500	7,080	66,100
Total	50,200	196,000	97,500	395,000
Stainless steel scrap	41,100	45,900	82,000	90,100
Grand total	91,300	242,000	180,000	485,000
Imports:				
Ingot	10,400	28,800	19,600	50,800
Flat-rolled (width > 600 mm)	21,900	54,600	45,100	112,000
Flat-rolled (width < 600 mm)	3,750	14,900	7,490	30,300
Bars and rods in irregular coils	1,680	5,810	4,280	14,200
Other bars and rods	294	1,490	671	3,570
Wire	626	3,600	1,450	7,950
Tubes, pipes, hollow profiles	7,380	53,600	15,500	116,000
Total	46,100	163,000	94,100	335,000
Stainless steel scrap	29,400	32,400	52,600	54,400
Grand total	75,500	195,000	147,000	390,000

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.