



Mineral Industry Surveys

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CHROMIUM IN MARCH 2013

On the basis of gross weight, consumption of chromium ferroalloys and metal in March 2013 increased 6% compared with consumption in February 2013. Consumption in March 2013 decreased slightly compared with consumption in the March 2012.

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

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

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2012	2013			January– March ²
	January– December ²	January	February	March	
Production, stainless steel ³	1,980,000	184,000	159,000	148,000	490,000
Components of U.S. supply:					
Stainless steel scrap receipts	858,000	75,800	71,900	73,600	221,000
Stainless steel scrap consumption	1,300,000	110,000	107,000	108,000	325,000
Imports for consumption:					
Chromite ore	277,000	6,010	6,000	6,050	18,100
Ferrochromium:					
More than 4% carbon	449,000	29,800	36,000	25,800	91,700
More than 3% but not more than 4% carbon	411	--	138	60	198
More than 0.5% but not more than 3% carbon	7,580	2,090	3,460	80	5,630
Not more than 0.5% carbon	43,900	3,800	2,510	1,790	8,100
Ferrochromium silicon	25,800	--	3,610	--	3,610
Total ferroalloy imports	526,000	35,700	45,700	27,800	109,000
Chromium metal ⁴	15,300	669	1,120	1,940	3,730
Stainless steel	668,000	50,600	41,400	46,100	138,000
Stainless steel scrap	155,000	15,000	15,300	13,500	43,800
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	423,000	35,200	33,900	35,900	105,000
Exports:					
Chromite ore	21,200	725	5,600	191	6,510
Chromium ferroalloys:					
High-carbon ferrochromium	4,460	171	538	481	1,190
Low-carbon ferrochromium	768	--	42	3	45
Ferrochromium silicon	64	--	--	--	--
Total ferroalloy exports	5,300	171	580	484	1,240
Chromium metal	462	42	43	56	141
Stainless steel	590,000	53,300	47,800	45,400	147,000
Stainless steel scrap	624,000	50,900	54,000	53,500	158,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	9,280	10,400	10,500	9,590	9,590
Government stockpile:					
Chromium ferroalloys	144,000	142,000	141,000	140,000	140,000
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)

	2013		
	February	March	January– March ³
Consumption by end use:			
Steel:			
Carbon steel	154 ^r	198	560
High-strength low-alloy steel	142	151	444
Stainless and heat-resisting steel	30,200	32,200	93,700
Unspecified steel ⁴	2,810 ^r	2,770	8,500
Superalloys	496	492	1,490
Other alloys and uses ⁵	107	110	325
Total	33,900	35,900	105,000
Total, chromium content	19,500	20,600	60,300
Consumption by material:			
Low-carbon ferrochromium	1,690	1,730	5,200
High-carbon ferrochromium	29,700	31,600	92,200
Ferrochromium silicon	W	W	W
Chromium metal	224	220	672
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	33,900	35,900	105,000
Total, chromium content	19,500	20,600	60,300
Consumer stocks:			
Low-carbon ferrochromium	1,660	1,670	1,670
High-carbon ferrochromium	8,070 ^r	7,160	7,160
Ferrochromium silicon	W	W	W
Chromium metal	141	150	150
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,500	9,590	9,590
Total, chromium content	6,220	5,680	5,680

^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)

Period	Chromium ferroalloys		Chromium metal
	High-carbon ferro-chromium	Low-carbon ferro-chromium	
2012:			
March	95,200	53,000	4,230
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

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:							
March	455	\$292	391	210	\$561	42	\$1,150
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
January–March ⁴	6,510	1,660	1,240	593	1,490	141	3,650

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	February	March	January– March 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	1,500	50	1,550
Chromic oxide content	12,900	661	21	682
46% or more chromic oxide:				
Gross weight	248,000	4,500	6,000	16,500
Chromic oxide content	120,000	2,290	2,870	8,060
Total, all grades:				
Gross weight	277,000	6,000	6,050	18,100
Chromic oxide content	133,000	2,950	2,900	8,740
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	43,900	2,510	1,790	8,100
Chromium content	30,300	1,560	1,250	5,410
More than 0.5% but not more than 3% carbon:				
Gross weight	7,580	3,460	80	5,630
Chromium content	5,150	2,370	59	3,790
Total, low-carbon:				
Gross weight	51,500	5,960	1,870	13,700
Chromium content	35,500	3,930	1,310	9,210
Medium-carbon: ⁴				
Gross weight	411	138	60	198
Chromium content	222	74	44	118
High-carbon: ⁵				
Gross weight	449,000	36,000	25,800	91,700
Chromium content	257,000	22,000	13,100	50,700
Total, all grades:				
Gross weight	500,000	42,100	27,800	106,000
Chromium content	293,000	26,000	14,500	60,000
Chromium metal:				
Unwrought powders	3,060	333	406	913
Waste and scrap	415	4	9	16
Other than waste and scrap and unwrought powders	11,800	783	1,530	2,800
Total, all grades	15,300	1,120	1,940	3,730

-- 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	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	468	318	\$649	468	318	\$649
Kazakhstan	--	--	--	19,800	13,700	23,200
Russia	687	468	867	4,940	3,220	6,340
South Africa	23,600	11,600	20,600	62,700	31,000	55,200
Sweden	271	179	412	2,840	1,880	5,440
Turkey	833	537	986	928	600	1,120
Total	25,800	13,100	23,500	91,700	50,700	91,900
Medium-carbon ferrochromium:⁵						
Belgium	60	44	31	60	44	31
Russia	--	--	--	138	74	74
Total	60	44	31	198	118	105
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	80	59	276	2,080	1,440	5,640
South Africa	--	--	--	300	164	634
Total	80	59	276	5,630	3,790	12,500
Not more than 0.5% carbon:						
Brazil	--	--	--	60	37	147
China	20	13	106	20	13	106
Germany	286	201	1,120	1,140	801	4,900
Japan	120	84	553	415	289	1,920
Kazakhstan	--	--	--	405	106	585
Russia	875	605	2,620	5,250	3,590	15,300
Turkey	489	347	1,550	809	573	2,580
Total	1,790	1,250	5,940	8,100	5,410	25,600
All grades:						
Albania	468	318	649	468	318	649
Belgium	60	44	31	60	44	31
Brazil	--	--	--	60	37	147
China	20	13	106	20	13	106
Germany	286	201	1,120	3,050	2,070	7,680
Japan	120	84	553	415	289	1,920
Kazakhstan	--	--	--	21,500	14,700	27,200
Russia	1,640	1,130	3,760	12,400	8,330	27,400
South Africa	23,600	11,600	20,600	63,000	31,200	55,800
Sweden	271	179	412	2,840	1,880	5,440
Turkey	1,320	883	2,540	1,740	1,170	3,700
Total	27,800	14,500	29,800	106,000	60,000	130,000

-- 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 2013, 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:				
Belgium	38	\$570	76	\$1,140
China	124	1,610	377	5,060
France	76	1,110	152	2,220
Germany	5	138	10	331
Korea, Republic of	--	--	(4)	2
Russia	100	1,000	218	2,550
United Kingdom	64	739	79	1,070
Total	406	5,160	913	12,400
Waste and scrap:				
Canada	1	6	7	40
Japan	--	--	1	7
United Kingdom	8	55	8	55
Total	9	61	16	102
Other than waste and scrap and unwrought powders:				
Canada	(4)	4	(4)	11
China	268	2,500	533	5,610
France	267	3,360	648	8,300
Germany	1	65	22	412
Liechtenstein	(4)	8	(4)	22
Netherlands	--	--	3	29
Russia	640	6,000	1,060	10,200
Spain	--	--	9	43
United Kingdom	351	4,190	525	6,550
Total	1,530	16,100	2,800	31,200
All grades:				
Belgium	38	570	76	1,140
Canada	1	10	8	51
China	392	4,100	910	10,700
France	343	4,460	799	10,500
Germany	5	203	32	743
Japan	--	--	1	7
Korea, Republic of	--	--	(4)	2
Liechtenstein	(4)	8	(4)	22
Netherlands	--	--	3	29
Russia	740	7,000	1,280	12,800
Spain	--	--	9	43
United Kingdom	423	4,990	613	7,670
Total	1,940	21,300	3,730	43,700

-- 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	March		January–March ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	1,340	\$8,700	19,900	\$34,500
Flat-rolled (width > 600 mm)	27,800	89,000	79,800	249,000
Flat-rolled (width < 600 mm)	6,860	26,800	20,400	81,200
Bars and rods in irregular coils	853	2,770	1,960	6,280
Other bars and rods	3,680	27,900	10,300	79,200
Wire	1,270	9,080	3,530	24,900
Tubes, pipes, hollow profiles	3,650	31,200	10,600	88,300
Total	45,400	195,000	147,000	563,000
Stainless steel scrap	53,500	65,500	158,000	188,000
Grand total	99,000	261,000	305,000	751,000
Imports:				
Ingot	9,960	31,800	26,300	81,200
Flat-rolled (width > 600 mm)	21,600	61,200	69,000	190,000
Flat-rolled (width < 600 mm)	3,230	13,100	9,040	38,500
Bars and rods in irregular coils	2,230	8,920	6,830	23,900
Other bars and rods	325	1,830	1,250	7,800
Wire	485	3,060	1,450	10,000
Tubes, pipes, hollow profiles	8,250	84,700	24,300	201,000
Total	46,100	205,000	138,000	552,000
Stainless steel scrap	13,500	16,400	43,800	58,700
Grand total	59,600	221,000	182,000	610,000

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.