



Mineral Industry Surveys

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CHROMIUM IN NOVEMBER 2012

On the basis of gross weight, consumption of chromium ferroalloys and metal in November 2012 increased slightly compared with consumption in October 2012. Consumption in November 2012 increased by 3% compared with consumption in the November 2011.

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

chromium statistics, U.S. Government stockpile inventory of chromium materials in November 2012, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of November 2012, and U.S. foreign trade data for selected chromium-containing materials in November 2012.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2011	2012			
	January– December ²	September	October	November	January– November
Production, stainless steel ³	2,070,000	163,000	146,000	154,000	1,820,000
Components of U.S. supply:					
Stainless steel scrap receipts	866,000	71,700	72,800	72,000	795,000
Stainless steel scrap consumption	1,300,000	108,000	108,000	108,000	1,200,000
Imports for consumption:					
Chromite ore	191,000	12,500	33,000	7,610	241,000
Ferrochromium:					
More than 4% carbon	462,000	63,300	27,000	23,700	406,000
More than 3% but not more than 4% carbon	1,510	--	271	--	411
More than 0.5% but not more than 3% carbon	393	1,000	162	140	3,200
Not more than 0.5% carbon	53,700	5,040	1,800	3,010	41,300
Ferrochromium silicon	20,000	3,000	1,500	--	20,800
Total ferroalloy imports	538,000	72,300	30,700	26,800	472,000
Chromium metal ⁴	13,600	911	1,070	777	14,200
Stainless steel	605,000	50,300	57,500	61,900	615,000
Stainless steel scrap	169,000	9,090	10,200	17,200	145,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	422,000	35,900	35,500	35,600	396,000
Exports:					
Chromite ore	5,250	605	542	1,210	19,900
Chromium ferroalloys:					
High-carbon ferrochromium	4,260	463	364	781	3,830
Low-carbon ferrochromium	1,030	40	78	113	728
Ferrochromium silicon	28	--	--	--	56
Total ferroalloy exports	5,330	503	442	893	4,620
Chromium metal	557	36	66	19	444
Stainless steel	558,000	50,700	43,800	46,900	541,000
Stainless steel scrap	656,000	54,200	61,400	54,000	573,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,920	9,920	10,600	10,800	10,800
Government stockpile:					
Chromium ferroalloys	150,000	146,000	146,000	145,000	145,000
Chromium metal	4,230	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)

	2012		
	October	November	January– November ³
Consumption by end use:			
Steel:			
Carbon steel	275	240	3,090
High-strength low-alloy steel	139	140	2,140
Stainless and heat-resisting steel	31,100	31,200	346,000
Unspecified steel ⁴	3,350	3,330	38,400
Superalloys	500	498	5,670
Other alloys and uses ⁵	114	108	1,210
Total	35,500	35,600	396,000
Total, chromium content	20,500	20,500	230,000
Consumption by material:			
Low-carbon ferrochromium	2,400	2,340	26,600
High-carbon ferrochromium	30,600	30,700	342,000
Ferrochromium silicon	W	W	W
Chromium metal	230	225	2,610
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	35,500	35,600	396,000
Total, chromium content	20,500	20,500	230,000
Consumer stocks:			
Low-carbon ferrochromium	1,670	1,690	1,690
High-carbon ferrochromium	8,170	8,270	8,270
Ferrochromium silicon	W	W	W
Chromium metal	130	135	135
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,600	10,800	10,800
Total, chromium content	6,280	6,350	6,350

¹Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

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

³Includes estimates.

⁴May include revised data that are not broken out by specific month(s).

⁵Includes electrical, full alloy, tool, and unspecified steel end uses.

⁶Includes 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	
2011:			
November	95,200	54,600	4,230
December	95,200	54,300	4,230
2012:			
January	95,200	54,100	4,230
February	95,200	53,200	4,230
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

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)
2011:							
November	615	\$394	377	151	\$496	31	\$805
December	477	333	307	165	515	44	1,250
January–December ⁴	5,250	3,520	5,330	2,500	7,670	557	13,800
2012:							
January	803	475	374	199	417	24	891
February	571	345	131	65	244	35	1,060
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
January–November	19,900	9,230	4,620	2,340	6,340	444	12,400

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)

	2011	2012		
	January– December ²	October	November	January– November
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	151	--	--	--
Chromic oxide content	78	--	--	--
More than 40% but less than 46% chromic oxide:				
Gross weight	27,900	20,000	--	27,500
Chromic oxide content	12,600	8,910	--	12,300
46% or more chromic oxide:				
Gross weight	163,000	13,000	7,610	214,000
Chromic oxide content	90,000	5,990	3,850	104,000
Total, all grades:				
Gross weight	191,000	33,000	7,610	241,000
Chromic oxide content	103,000	14,900	3,850	116,000
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	53,700	1,800	3,010	41,300
Chromium content	37,100	1,260	2,060	28,500
More than 0.5% but not more than 3% carbon:				
Gross weight	393	162	140	3,200
Chromium content	224	114	77	2,150
Total, low-carbon:				
Gross weight	54,100	1,960	3,150	44,500
Chromium content	37,400	1,380	2,140	30,700
Medium-carbon: ⁴				
Gross weight	1,510	271	--	411
Chromium content	855	146	--	222
High-carbon: ⁵				
Gross weight	462,000	27,000	23,700	406,000
Chromium content	265,000	13,400	13,000	233,000
Total, all grades:				
Gross weight	518,000	29,200	26,800	451,000
Chromium content	304,000	14,900	15,200	264,000
Chromium metal:				
Unwrought powders	2,720	323	348	2,850
Waste and scrap	574	25	3	411
Other than waste and scrap and unwrought powders	10,300	721	426	10,900
Total, all grades	13,600	1,070	777	14,200

-- 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 2012, BY GRADE AND COUNTRY¹

Grade and country	November			January–November 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	1,350	886	\$2,040	3,150	2,050	\$4,680
China	--	--	--	197	137	347
India	260	157	301	13,000	7,880	16,900
Kazakhstan	1,800	1,240	2,330	81,800	56,600	112,000
Russia	689	468	1,050	28,000	18,400	39,300
South Africa	13,000	6,410	12,500	207,000	102,000	204,000
Spain	--	--	--	20	13	33
Sweden	1,380	917	1,950	11,800	7,880	21,500
Switzerland	--	--	--	16	8	28
Turkey	526	339	672	31,500	20,800	48,900
Zimbabwe	4,680	2,590	5,140	29,400	16,900	35,700
Total	23,700	13,000	25,900	406,000	233,000	483,000
Medium-carbon ferrochromium:⁵						
Belgium	--	--	--	40	22	22
Russia	--	--	--	371	200	198
Total	--	--	--	411	222	221
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
China	--	--	--	69	46	99
Kazakhstan	--	--	--	1,350	932	3,610
Russia	--	--	--	1,340	928	3,900
South Africa	140	77	288	442	242	898
Total	140	77	288	3,200	2,150	8,510
Not more than 0.5% carbon:						
Belgium	--	--	--	35	23	128
Brazil	60	37	152	316	179	855
China	--	--	--	60	38	295
France	--	--	--	1	1	3
Germany	318	223	1,390	5,600	3,890	25,100
Japan	177	124	859	1,790	1,250	8,770
Kazakhstan	--	--	--	3,830	2,680	10,400
Russia	2,020	1,370	5,900	25,800	17,800	80,000
South Africa	--	--	--	500	338	1,530
Turkey	428	305	1,370	3,360	2,410	11,300
Total	3,010	2,060	9,670	41,300	28,500	138,000
All grades:						
Albania	1,350	886	2,040	3,150	2,050	4,680
Belgium	--	--	--	75	46	151
Brazil	60	37	152	316	179	855
China	--	--	--	326	221	741
France	--	--	--	1	1	3
Germany	318	223	1,390	5,600	3,890	25,100
India	260	157	301	13,000	7,880	16,900
Japan	177	124	859	1,790	1,250	8,770
Kazakhstan	1,800	1,240	2,330	86,900	60,200	126,000
Russia	2,710	1,840	6,950	55,500	37,300	123,000
South Africa	13,100	6,490	12,800	208,000	103,000	206,000
Spain	--	--	--	20	13	33
Sweden	1,380	917	1,950	11,800	7,880	21,500
Switzerland	--	--	--	16	8	28
Turkey	954	645	2,040	34,900	23,200	60,200
Zimbabwe	4,680	2,590	5,140	29,400	16,900	35,700
Total	26,800	15,200	35,900	451,000	264,000	630,000

-- 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 more than 3% but not more than 4% carbon.

TABLE 6—Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2012, BY GRADE AND COUNTRY¹

⁶Ferrochromium containing not more than 3% carbon.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2012, BY GRADE AND BY COUNTRY¹

Grade and country	November		January–November ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
Belgium	57	\$889	57	\$889
China	143	1,940	868	12,700
France	39	607	632	10,600
Germany	3	79	21	751
Japan	3	72	5	105
Russia	60	657	690	7,630
Spain	--	--	48	456
United Kingdom	43	658	531	7,120
Total	348	4,910	2,850	40,200
Waste and scrap:				
China	--	--	1	27
Germany	1	48	1	48
Japan	--	--	12	197
Mexico	--	--	374	1,020
Singapore	2	71	20	566
Taiwan	--	--	3	35
Total	3	119	411	1,890
Other than waste and scrap and unwrought powders:				
Canada	(4)	2	2	23
China	38	671	1,280	17,600
France	95	1,510	2,170	34,200
Germany	1	68	51	1,340
Italy	(4)	3	(4)	3
Japan	1	73	7	434
Liechtenstein	(4)	9	1	62
Netherlands	--	--	13	124
Russia	200	2,070	4,320	52,700
Spain	--	--	60	652
Sweden	--	--	(4)	16
Switzerland	--	--	(4)	14
United Kingdom	90	1,330	3,010	41,500
Total	426	5,740	10,900	149,000
All grades:				
Belgium	57	889	57	889
Canada	(4)	2	2	23
China	182	2,620	2,150	30,400
France	134	2,120	2,800	44,700
Germany	5	195	74	2,140
Italy	(4)	3	(4)	3
Japan	4	145	24	736
Liechtenstein	(4)	9	1	62
Mexico	--	--	374	1,020
Netherlands	--	--	13	124
Russia	260	2,730	5,010	60,300
Singapore	2	71	20	566
Spain	--	--	108	1,110
Sweden	--	--	(4)	16
Switzerland	--	--	(4)	14
Taiwan	--	--	3	35
United Kingdom	133	1,990	3,540	48,600
Total	777	10,800	14,200	191,000

-- 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.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2012¹

Stainless steel product	November		January–November	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
Exports:				
Ingot	8,820	\$14,800	81,900	\$152,000
Flat-rolled (width > 600 mm)	19,800	60,400	268,000	866,000
Flat-rolled (width < 600 mm)	7,570	27,500	80,200	323,000
Bars and rods in irregular coils	1,100	3,430	7,930	27,800
Other bars and rods	3,790	29,400	45,000	350,000
Wire	1,230	8,670	14,500	102,000
Tubes, pipes, hollow profiles	4,590	37,900	43,700	376,000
Total	46,900	182,000	541,000	2,200,000
Stainless steel scrap	54,000	66,800	573,000	742,000
Grand total	101,000	249,000	1,110,000	2,940,000
Imports:				
Ingot	23,500	64,600	148,000	462,000
Flat-rolled (width > 600 mm)	23,700	62,700	291,000	831,000
Flat-rolled (width < 600 mm)	3,790	14,800	38,300	163,000
Bars and rods in irregular coils	1,780	7,470	25,900	106,000
Other bars and rods	475	1,690	3,260	18,800
Wire	387	3,150	3,720	29,400
Tubes, pipes, hollow profiles	8,190	65,600	105,000	889,000
Total	61,900	220,000	615,000	2,500,000
Stainless steel scrap	17,200	17,300	145,000	224,000
Grand total	79,000	237,000	759,000	2,720,000

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

²Export 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.