

Mineral Industry Surveys

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CHROMIUM IN AUGUST 2012

On the basis of gross weight, consumption of chromium ferroalloys and metal in August 2012 increased by 9% compared with consumption in July 2012. Consumption in August 2012 increased by 10% compared with consumption in the August 2011.

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

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

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2011	2012			
	January– December ²	June	July	August	January– August
Production, stainless steel ³	2,070,000	165,000	175,000	171,000	1,360,000
Components of U.S. supply:					
Stainless steel scrap receipts	866,000	71,800	71,300 ^r	71,600	578,000
Stainless steel scrap consumption	1,300,000	108,000	106,000 ^r	109,000	877,000
Imports for consumption:					
Chromite ore	191,000	39,000	7,050	43,000	188,000
Ferrochromium:					
More than 4% carbon	462,000	22,100	32,600	21,300	292,000
More than 3% but not more than 4% carbon	1,510	--	--	--	140
More than 0.5% but not more than 3% carbon	393	100	1,230	--	1,900
Not more than 0.5% carbon	53,700	2,440	5,190	2,550	31,500
Ferrochromium silicon	20,000	--	3,100	--	16,300
Total ferroalloy imports	538,000	24,600	42,100	23,900	342,000
Chromium metal ⁴	13,600	1,520	1,480	1,280	11,400
Stainless steel	605,000	60,400	65,300	62,800	445,000
Stainless steel scrap	169,000	12,900	9,710	10,000	108,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	422,000 ^r	35,900 ^r	34,600 ^r	37,500	290,000
Exports:					
Chromite ore	5,250	11,400	886	1,410	17,500
Chromium ferroalloys:					
High-carbon ferrochromium	4,260	428	196	82	2,220
Low-carbon ferrochromium	1,030	58	113	23	497
Ferrochromium silicon	28	42	--	--	56
Total ferroalloy exports	5,330	528	309	105	2,780
Chromium metal	557	34	43	48	324
Stainless steel	558,000	45,000	38,600	61,100	399,000
Stainless steel scrap	656,000	62,100	48,800	57,700	403,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,920 ^r	9,930 ^r	10,300 ^r	10,400	10,400
Government stockpile:					
Chromium ferroalloys	150,000	147,000	147,000	147,000	147,000
Chromium metal	4,230	4,090	4,090	4,090	4,090

^rRevised. -- 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		
	July	August	January– August ³
Consumption by end use:			
Steel:			
Carbon steel	339 ^r	362	2,700
High-strength low-alloy steel	139	139	1,720
Stainless and heat-resisting steel	30,200 ^r	33,000	252,000
Unspecified steel ⁴	3,230	3,440	28,300
Superalloys	494 ^r	500	4,180
Other alloys and uses ⁵	112	107	876
Total	34,600^r	37,500	290,000
Total, chromium content	20,100^r	21,600	168,000
Consumption by material:			
Low-carbon ferrochromium	2,440 ^r	2,480	19,900
High-carbon ferrochromium	29,700 ^r	32,500	250,000
Ferrochromium silicon	W	W	W
Chromium metal	222 ^r	226	1,930
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	34,600^r	37,500	290,000
Total, chromium content	20,100^r	21,600	168,000
Consumer stocks:			
Low-carbon ferrochromium	1,810 ^r	1,810	1,810
High-carbon ferrochromium	7,640 ^r	7,780	7,780
Ferrochromium silicon	W	W	W
Chromium metal	130	132	132
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,300^r	10,400	10,400
Total, chromium content	6,090^r	6,140	6,140

^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	
2011:			
August	94,100	55,600	4,270
September	95,200	55,100	4,240
October	95,200	54,900	4,240
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

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)
2011:							
August	846	\$513	287	159	\$396	31	\$937
September	739	491	554	281	793	66	1,150
October	370	273	143	72	212	73	1,820
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
January–August	17,500	7,690	2,780	1,510	3,860	324	9,210

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	July	August	January– August
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	--	3,000	7,500
Chromic oxide content	12,600	--	1,320	3,340
46% or more chromic oxide:				
Gross weight	163,000	7,050	40,000	181,000
Chromic oxide content	90,000	3,410	18,500	87,500
Total, all grades:				
Gross weight	191,000	7,050	43,000	188,000
Chromic oxide content	103,000	3,410	19,900	90,900
Ferrocromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	53,700	5,190	2,550	31,500
Chromium content	37,100	3,580	1,780	21,800
More than 0.5% but not more than 3% carbon:				
Gross weight	393	1,230	--	1,900
Chromium content	224	849	--	1,270
Total, low-carbon:				
Gross weight	54,100	6,430	2,550	33,400
Chromium content	37,400	4,430	1,780	23,000
Medium-carbon: ⁴				
Gross weight	1,510	--	--	140
Chromium content	855	--	--	76
High-carbon: ⁵				
Gross weight	462,000	32,600	21,300	292,000
Chromium content	265,000	19,800	11,100	169,000
Total, all grades:				
Gross weight	518,000	39,000	23,900	325,000
Chromium content	304,000	24,300	12,900	192,000
Chromium metal:				
Unwrought powders	2,720	280	373	2,070
Waste and scrap	574	41	53	363
Other than waste and scrap and unwrought powders	10,300	1,160	858	8,990
Total, all grades	13,600	1,480	1,280	11,400

-- 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).

³Ferrocromium containing not more than 3% carbon.

⁴Ferrocromium containing more than 3% carbon but not more than 4% carbon.

⁵Ferrocromium 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	August			January–August 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	300	200	\$526	1,800	1,160	\$2,630
China	--	--	--	197	137	347
India	963	583	1,300	11,500	7,000	15,100
Kazakhstan	--	--	--	59,800	41,400	83,400
Russia	1,160	803	1,630	24,800	16,300	35,200
South Africa	17,400	8,560	17,800	140,000	69,300	139,000
Spain	--	--	--	20	13	33
Sweden	--	--	--	9,130	6,120	17,100
Turkey	1,470	951	2,070	22,700	14,900	36,100
Zimbabwe	--	--	--	21,700	12,600	27,200
Total	21,300	11,100	23,400	292,000	169,000	356,000
Medium-carbon ferrochromium:⁵						
Belgium	--	--	--	40	22	22
Russia	--	--	--	100	54	54
Total	--	--	--	140	76	76
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
China	--	--	--	69	46	99
Kazakhstan	--	--	--	950	656	2,550
Russia	--	--	--	579	400	1,750
South Africa	--	--	--	302	166	610
Total	--	--	--	1,900	1,270	5,000
Not more than 0.5% carbon:						
Belgium	--	--	--	35	23	128
Brazil	54	32	144	256	143	703
China	--	--	--	40	25	204
Germany	840	589	3,910	4,640	3,210	20,800
Japan	300	209	1,460	1,400	975	6,880
Kazakhstan	--	--	--	3,830	2,680	10,400
Russia	983	683	2,940	18,500	12,700	57,700
South Africa	--	--	--	500	338	1,530
Turkey	368	264	1,250	2,250	1,610	7,660
Total	2,550	1,780	9,700	31,500	21,800	106,000
All grades:						
Albania	300	200	526	1,800	1,160	2,630
Belgium	--	--	--	75	46	151
Brazil	54	32	144	256	143	703
China	--	--	--	306	208	650
Germany	840	589	3,910	4,640	3,210	20,800
India	963	583	1,300	11,500	7,000	15,100
Japan	300	209	1,460	1,400	975	6,880
Kazakhstan	--	--	--	64,600	44,800	96,400
Russia	2,150	1,490	4,560	44,000	29,500	94,700
South Africa	17,400	8,560	17,800	141,000	69,800	141,000
Spain	--	--	--	20	13	33
Sweden	--	--	--	9,130	6,120	17,100
Turkey	1,840	1,220	3,310	24,900	16,500	43,700
Zimbabwe	--	--	--	21,700	12,600	27,200
Total	23,900	12,900	33,000	325,000	192,000	467,000

-- 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.

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	August		January–August ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	56	\$697	517	\$7,880
France	41	721	518	8,790
Germany	--	--	17	617
Japan	--	--	2	33
Russia	200	2,230	571	6,330
United Kingdom	76	1,050	447	5,880
Total	373	4,700	2,070	29,500
Waste and scrap:				
Japan	--	--	11	187
Mexico	47	117	331	928
Singapore	6	123	18	495
Taiwan	--	--	3	35
Total	53	240	363	1,640
Other than waste and scrap and unwrought powders:				
Canada	--	--	2	20
China	137	1,730	1,120	15,300
France	76	1,250	1,690	27,300
Germany	6	96	49	1,160
Japan	1	42	6	361
Liechtenstein	--	--	(4)	36
Russia	480	4,730	3,740	46,300
Spain	--	--	60	652
Sweden	--	--	(4)	16
Switzerland	--	--	(4)	14
United Kingdom	158	2,140	2,330	32,400
Total	858	9,990	8,990	124,000
All grades:				
Canada	--	--	2	20
China	192	2,430	1,630	23,200
France	117	1,970	2,210	36,100
Germany	6	96	67	1,780
Japan	1	42	20	581
Liechtenstein	--	--	(4)	36
Mexico	47	117	331	928
Russia	680	6,970	4,310	52,600
Singapore	6	123	18	495
Spain	--	--	60	652
Sweden	--	--	(4)	16
Switzerland	--	--	(4)	14
Taiwan	--	--	3	35
United Kingdom	235	3,190	2,770	38,300
Total	1,280	14,900	11,400	155,000

-- 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	August		January–August	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
Exports:				
Ingot	16,500	\$17,300	62,500	\$114,000
Flat-rolled (width > 600 mm)	26,300	83,400	200,000	656,000
Flat-rolled (width < 600 mm)	7,580	31,900	57,700	238,000
Bars and rods in irregular coils	541	1,710	4,890	18,400
Other bars and rods	4,600	34,100	33,000	257,000
Wire	1,430	10,400	10,700	73,900
Tubes, pipes, hollow profiles	4,100	37,600	30,800	269,000
Total	61,100	216,000	399,000	1,630,000
Stainless steel scrap	57,700	64,100	403,000	540,000
Grand total	119,000	280,000	803,000	2,170,000
Imports:				
Ingot	10,500	35,000	99,400	327,000
Flat-rolled (width > 600 mm)	35,400	95,700	214,000	628,000
Flat-rolled (width < 600 mm)	3,340	14,100	28,800	124,000
Bars and rods in irregular coils	1,680	7,880	19,400	81,900
Other bars and rods	403	2,420	2,170	13,700
Wire	407	3,500	2,640	20,200
Tubes, pipes, hollow profiles	11,000	165,000	78,000	682,000
Total	62,800	324,000	445,000	1,880,000
Stainless steel scrap	10,000	14,200	108,000	179,000
Grand total	72,800	338,000	553,000	2,060,000

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.