

Mineral Industry Surveys

For information, contact:

John F. Papp, Chromium Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4963, Fax: (703) 648-7757
E-mail: jpapp@usgs.gov

Mahbood Mahdavi (Data)
Telephone: (703) 648-7993
Fax: (703) 648-7975
E-mail: mmahdavi@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

CHROMIUM IN JULY 2012

On the basis of gross weight, consumption of chromium ferroalloys and metal in July 2012 decreased slightly compared with consumption in June 2012. Consumption in July 2012 decreased slightly compared with consumption in the July 2011.

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

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

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2011	2012			
	January– December ²	May	June	July	January– July
Production, stainless steel ³	2,070,000	174,000	165,000	175,000	1,190,000
Components of U.S. supply:					
Stainless steel scrap receipts	866,000	73,100	71,800	63,900	499,000
Stainless steel scrap consumption	1,300,000	110,000	108,000	95,600	757,000
Imports for consumption:					
Chromite ore	191,000	10,300	39,000	7,050	145,000
Ferrochromium:					
More than 4% carbon	462,000	47,300	22,100	32,600	271,000
More than 3% but not more than 4% carbon	1,510	--	--	--	140
More than 0.5% but not more than 3% carbon	393	150	100	1,230	1,900
Not more than 0.5% carbon	53,700	4,530	2,440	5,190	28,900
Ferrochromium silicon	20,000	3,140	--	3,100	16,300
Total ferroalloy imports	538,000	55,100	24,600	42,100	318,000
Chromium metal ⁴	13,600	1,630	1,520	1,480	10,100
Stainless steel	605,000	63,200	60,400	65,300	382,000
Stainless steel scrap	169,000	10,300	12,900	9,710	98,500
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	421,000	35,800	35,800	35,700	253,000
Exports:					
Chromite ore	5,250	673	11,400	886	16,100
Chromium ferroalloys:					
High-carbon ferrochromium	4,260	302	428	196	2,140
Low-carbon ferrochromium	1,030	158	58	113	474
Ferrochromium silicon	28	--	42	--	56
Total ferroalloy exports	5,330	460	528	309	2,670
Chromium metal	557	46	34	43	276
Stainless steel	558,000	52,600	45,000	38,600	338,000
Stainless steel scrap	656,000	61,600	62,100	48,800	346,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,890	10,400	9,900	9,960	9,960
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

-- 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		
	June	July	January– July ³
Consumption by end use:			
Steel:			
Carbon steel	327 ^r	314	2,310
High-strength low-alloy steel	140	139	1,580
Stainless and heat-resisting steel	31,400	31,400	220,000
Unspecified steel ⁴	3,370	3,230	24,900
Superalloys	463	437	3,280
Other alloys and uses ⁵	109	112	769
Total	35,800	35,700	253,000
Total, chromium content	20,600	20,500	147,000
Consumption by material:			
Low-carbon ferrochromium	2,440 ^r	2,380	17,000
High-carbon ferrochromium	30,800	30,700	218,000
Ferrochromium silicon	W	W	W
Chromium metal	243	227	1,740
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	35,800	35,700	253,000
Total, chromium content	20,600	20,500	147,000
Consumer stocks:			
Low-carbon ferrochromium	1,770	1,790	1,790
High-carbon ferrochromium	7,370	7,390	7,390
Ferrochromium silicon	W	W	W
Chromium metal	132	130	130
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	9,900	9,960	9,960
Total, chromium content	5,860 ^r	5,870	5,870

^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:			
July	94,100	55,700	4,270
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

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:							
July	375	\$250	294	112	\$517	38	\$1,120
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
January–July	16,100	6,660	2,670	1,470	3,710	276	7,950

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	June	July	January– July
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	1,500	--	4,500
Chromic oxide content	12,600	668	--	2,020
46% or more chromic oxide:				
Gross weight	163,000	37,500	7,050	141,000
Chromic oxide content	90,000	19,400	3,410	69,000
Total, all grades:				
Gross weight	191,000	39,000	7,050	145,000
Chromic oxide content	103,000	20,100	3,410	71,000
Ferrocromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	53,700	2,440	5,190	28,900
Chromium content	37,100	1,700	3,580	20,000
More than 0.5% but not more than 3% carbon:				
Gross weight	393	100	1,230	1,900
Chromium content	224	70	849	1,270
Total, low-carbon:				
Gross weight	54,100	2,540	6,430	30,800
Chromium content	37,400	1,770	4,430	21,200
Medium-carbon: ⁴				
Gross weight	1,510	--	--	140
Chromium content	855	--	--	76
High-carbon: ⁵				
Gross weight	462,000	22,100	32,600	271,000
Chromium content	265,000	11,900	19,800	158,000
Total, all grades:				
Gross weight	518,000	24,600	39,000	302,000
Chromium content	304,000	13,600	24,300	179,000
Chromium metal:				
Unwrought powders	2,720	279	280	1,700
Waste and scrap	574	40	41	311
Other than waste and scrap and unwrought powders	10,300	1,200	1,160	8,130
Total, all grades	13,600	1,520	1,480	10,100

-- 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	July			January–July 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	--	--	--	1,500	961	\$2,110
China	--	--	--	197	137	347
India	2,330	1,410	\$3,210	10,600	6,410	13,800
Kazakhstan	15,500	10,700	22,000	59,800	41,400	83,400
Russia	2,320	1,540	3,270	23,700	15,500	33,600
South Africa	11,600	5,630	11,600	123,000	60,700	121,000
Spain	--	--	--	20	13	33
Sweden	814	542	1,360	9,130	6,120	17,100
Turkey	38	25	58	21,200	14,000	34,000
Zimbabwe	--	--	--	21,700	12,600	27,200
Total	32,600	19,800	41,500	271,000	158,000	332,000
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	69	46	99
Kazakhstan	800	552	2,170	950	656	2,550
Russia	364	251	1,080	579	400	1,750
South Africa	--	--	--	302	166	610
Total	1,230	849	3,350	1,900	1,270	5,000
Not more than 0.5% carbon:						
Belgium	--	--	--	35	23	128
Brazil	--	--	--	202	111	559
China	20	13	106	40	25	204
Germany	340	239	1,590	3,800	2,630	16,900
Japan	240	166	1,160	1,100	766	5,420
Kazakhstan	1,230	846	3,530	3,830	2,680	10,400
Russia	3,010	2,060	9,360	17,500	12,100	54,700
South Africa	--	--	--	500	338	1,530
Turkey	356	257	1,250	1,880	1,350	6,420
Total	5,190	3,580	17,000	28,900	20,000	96,300
All grades:						
Albania	--	--	--	1,500	961	2,110
Belgium	--	--	--	75	46	151
Brazil	--	--	--	202	111	559
China	89	59	204	306	208	650
Germany	340	239	1,590	3,800	2,630	16,900
India	2,330	1,410	3,210	10,600	6,410	13,800
Japan	240	166	1,160	1,100	766	5,420
Kazakhstan	17,500	12,100	27,600	64,600	44,800	96,400
Russia	5,700	3,850	13,700	41,900	28,100	90,100
South Africa	11,600	5,630	11,600	124,000	61,200	123,000
Spain	--	--	--	20	13	33
Sweden	814	542	1,360	9,130	6,120	17,100
Turkey	394	282	1,310	23,100	15,300	40,400
Zimbabwe	--	--	--	21,700	12,600	27,200
Total	39,000	24,300	61,800	302,000	179,000	434,000

-- 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	July		January–July ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	99	\$1,340	461	\$7,180
France	54	917	477	8,070
Germany	5	158	17	617
Japan	--	--	2	33
Russia	40	444	371	4,100
United Kingdom	82	1,080	371	4,830
Total	280	3,940	1,700	24,800
Waste and scrap:				
Japan	9	164	11	187
Mexico	28	57	285	811
Singapore	5	105	12	372
Taiwan	--	--	3	35
Total	41	326	311	1,400
Other than waste and scrap and unwrought powders:				
Canada	--	--	2	20
China	197	2,240	980	13,600
France	326	5,140	1,620	26,000
Germany	19	330	43	1,060
Japan	1	120	5	319
Liechtenstein	--	--	(4)	36
Russia	280	3,260	3,260	41,500
Spain	13	138	60	652
Sweden	(4)	16	(4)	16
Switzerland	--	--	(4)	14
United Kingdom	327	4,350	2,170	30,300
Total	1,160	15,600	8,130	114,000
All grades:				
Canada	--	--	2	20
China	296	3,580	1,440	20,800
France	380	6,060	2,090	34,100
Germany	24	488	61	1,680
Japan	10	285	18	539
Liechtenstein	--	--	(4)	36
Mexico	28	57	285	811
Russia	320	3,710	3,630	45,600
Singapore	5	105	12	372
Spain	13	138	60	652
Sweden	(4)	16	(4)	16
Switzerland	--	--	(4)	14
Taiwan	--	--	3	35
United Kingdom	409	5,430	2,540	35,100
Total	1,480	19,900	10,100	140,000

-- 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	July		January–July	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
Exports:				
Ingot	2,160	\$12,800	46,000	\$96,300
Flat-rolled (width > 600 mm)	20,500	63,600	174,000	573,000
Flat-rolled (width < 600 mm)	6,220	26,200	50,100	206,000
Bars and rods in irregular coils	638	2,470	4,350	16,700
Other bars and rods	4,130	29,100	28,400	222,000
Wire	1,370	8,640	9,270	63,400
Tubes, pipes, hollow profiles	3,600	29,600	26,700	231,000
Total	38,600	172,000	338,000	1,410,000
Stainless steel scrap	48,800	59,300	346,000	476,000
Grand total	87,500	232,000	684,000	1,880,000
Imports:				
Ingot	14,400	45,800	88,900	292,000
Flat-rolled (width > 600 mm)	34,100	97,700	179,000	532,000
Flat-rolled (width < 600 mm)	4,160	17,200	25,500	110,000
Bars and rods in irregular coils	3,190	13,500	17,800	74,000
Other bars and rods	211	1,640	1,760	11,300
Wire	426	3,000	2,230	16,700
Tubes, pipes, hollow profiles	8,830	68,000	67,000	517,000
Total	65,300	247,000	382,000	1,550,000
Stainless steel scrap	9,710	15,500	98,500	165,000
Grand total	75,000	262,000	481,000	1,720,000

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.