



# Mineral Industry Surveys

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## CHROMIUM IN JUNE 2012

On the basis of gross weight, consumption of chromium ferroalloys and metal in June 2012 increased slightly compared with consumption in May 2012. Consumption in June 2012 increased by 8% compared with consumption in the June 2011.

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

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

TABLE 1  
U.S. SALIENT CHROMIUM STATISTICS<sup>1</sup>

(Metric tons, gross weight)

	2011	2012			January– June
	January– December <sup>2</sup>	April	May	June	
Production, stainless steel <sup>3</sup>	2,070,000	173,000	174,000	165,000	1,010,000
Components of U.S. supply:					
Stainless steel scrap receipts	866,000	72,500	73,100	71,800	435,000
Stainless steel scrap consumption	1,300,000	110,000	110,000	108,000	662,000
Imports for consumption:					
Chromite ore	191,000	5,000	10,300	39,000	138,000
Ferrochromium:					
More than 4% carbon	462,000	30,100	47,300	22,100	238,000
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	667
Not more than 0.5% carbon	53,700	3,790	4,530	2,440	23,700
Ferrochromium silicon	20,000	3,200	3,140	--	13,200
Total ferroalloy imports	538,000	37,100	55,100	24,600	276,000
Chromium metal <sup>4</sup>	13,600	1,270	1,630	1,520	8,660
Stainless steel	605,000	49,800	63,200	60,400	317,000
Stainless steel scrap	169,000	11,000	10,300	12,900	88,800
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	421,000	37,200	35,800 <sup>†</sup>	35,800	218,000
Exports:					
Chromite ore	5,250	1,290	673	11,400	15,200
Chromium ferroalloys:					
High-carbon ferrochromium	4,260	448	302	428	1,950
Low-carbon ferrochromium	1,030	31	158	58	361
Ferrochromium silicon	28	--	--	42	56
Total ferroalloy exports	5,330	479	460	528	2,360
Chromium metal	557	53	46	34	233
Stainless steel	558,000	51,500	52,600	45,000	300,000
Stainless steel scrap	656,000	49,500	61,600	62,100	297,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,890	9,920	10,400	9,900	9,900
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

<sup>†</sup>Revised. -- Zero.

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

<sup>2</sup>May include revised data that are not broken out by specific month(s).

<sup>3</sup>Data 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.

<sup>4</sup>Includes waste and scrap and other.

TABLE 2  
U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS<sup>1,2</sup>

(Metric tons, gross weight unless otherwise noted)

	2012		
	May	June	January– June <sup>3</sup>
<b>Consumption by end use:</b>			
<b>Steel:</b>			
Carbon steel	348 <sup>r</sup>	324	1,990
High-strength low-alloy steel	305 <sup>r</sup>	140	1,440
Stainless and heat-resisting steel	31,100	31,400	189,000
Unspecified steel <sup>4</sup>	3,460 <sup>r</sup>	3,370	21,700
Superalloys	470	463	2,840
Other alloys and uses <sup>5</sup>	114	109	657
<b>Total</b>	<b>35,800<sup>r</sup></b>	<b>35,800</b>	<b>218,000</b>
<b>Total, chromium content</b>	<b>21,100<sup>r</sup></b>	<b>20,600</b>	<b>126,000</b>
<b>Consumption by material:</b>			
Low-carbon ferrochromium	2,450 <sup>r</sup>	2,430	14,600
High-carbon ferrochromium	30,800 <sup>r</sup>	30,800	188,000
Ferrochromium silicon	W	W	W
Chromium metal	250	243	1,520
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
<b>Total</b>	<b>35,800<sup>r</sup></b>	<b>35,800</b>	<b>218,000</b>
<b>Total, chromium content</b>	<b>21,100<sup>r</sup></b>	<b>20,600</b>	<b>126,000</b>
<b>Consumer stocks:</b>			
Low-carbon ferrochromium	1,740 <sup>r</sup>	1,770	1,770
High-carbon ferrochromium	7,860	7,370	7,370
Ferrochromium silicon	W	W	W
Chromium metal	148	132	132
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
<b>Total</b>	<b>10,400</b>	<b>9,900</b>	<b>9,900</b>
<b>Total, chromium content</b>	<b>6,290</b>	<b>5,850</b>	<b>5,850</b>

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

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

<sup>2</sup>Includes estimates.

<sup>3</sup>May include revised data that are not broken out by specific month(s).

<sup>4</sup>Includes electrical, full alloy, tool, and unspecified steel end uses.

<sup>5</sup>Includes 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<sup>1,2</sup>

(Metric tons)

Period	Chromium ferroalloys		Chromium metal
	High-carbon ferro-chromium	Low-carbon ferro-chromium	
2011:			
June	94,100	56,200	4,290
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

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>These 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 METAL<sup>1</sup>

Period	Chromite ore		Chromium ferroalloys <sup>2</sup>			Chromium metal <sup>3</sup>	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
2011:							
June	216	\$161	693	297	\$803	38	\$978
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 <sup>4</sup>	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
January–June	15,200	6,120	2,360	1,320	3,220	233	6,720

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

<sup>2</sup>Includes low- and high-carbon ferrochromium and ferrochromium silicon.

<sup>3</sup>Includes chromium metal, waste and scrap, and unwrought powders.

<sup>4</sup>May 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 METAL<sup>1</sup>

(Metric tons)

	2011	2012		
	January– December <sup>2</sup>	May	June	January– June
<b>Chromite ore:</b>				
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	10,300	37,500	134,000
Chromic oxide content	90,000	4,750	19,400	65,600
Total, all grades:				
Gross weight	191,000	10,300	39,000	138,000
Chromic oxide content	103,000	4,750	20,100	67,600
<b>Ferrocromium:</b>				
Low-carbon: <sup>3</sup>				
Not more than 0.5% carbon:				
Gross weight	53,700	4,530	2,440	23,700
Chromium content	37,100	3,130	1,700	16,400
More than 0.5% but not more than 3% carbon:				
Gross weight	393	150	100	667
Chromium content	224	104	70	418
Total, low-carbon:				
Gross weight	54,100	4,680	2,540	24,400
Chromium content	37,400	3,230	1,770	16,800
Medium-carbon: <sup>4</sup>				
Gross weight	1,510	--	--	140
Chromium content	855	--	--	76
High-carbon: <sup>5</sup>				
Gross weight	462,000	47,300	22,100	238,000
Chromium content	265,000	26,700	11,900	138,000
Total, all grades:				
Gross weight	518,000	51,900	24,600	263,000
Chromium content	304,000	29,900	13,600	155,000
<b>Chromium metal:</b>				
Unwrought powders	2,720	139	279	1,420
Waste and scrap	574	35	40	269
Other than waste and scrap and unwrought powders	10,300	1,460	1,200	6,970
Total, all grades	13,600	1,630	1,520	8,660

-- Zero.

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

<sup>2</sup>May include revised data that are not broken out by specific month(s).

<sup>3</sup>Ferrocromium containing not more than 3% carbon.

<sup>4</sup>Ferrocromium containing more than 3% carbon but not more than 4% carbon.

<sup>5</sup>Ferrocromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2012, BY GRADE AND COUNTRY<sup>1</sup>

Grade and country	June			January–June <sup>2</sup>		
	Gross weight (metric tons)	Chromium content (metric tons)	Value <sup>3</sup> (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value <sup>3</sup> (thousands)
<b>High-carbon ferrochromium:<sup>4</sup></b>						
Albania	--	--	--	1,500	961	\$2,110
China	197	137	\$347	197	137	347
India	1,540	936	2,150	8,240	5,000	10,600
Kazakhstan	513	353	826	44,300	30,700	61,500
Russia	1,100	757	1,700	21,400	14,000	30,300
South Africa	16,900	8,520	18,000	111,000	55,100	109,000
Spain	--	--	--	20	13	33
Sweden	497	323	935	8,310	5,580	15,700
Turkey	1,300	837	1,810	21,200	14,000	33,900
Zimbabwe	--	--	--	21,700	12,600	27,200
Total	22,100	11,900	25,800	238,000	138,000	291,000
<b>Medium-carbon ferrochromium:<sup>5</sup></b>						
Belgium	--	--	--	40	22	22
Russia	--	--	--	100	54	54
Total	--	--	--	140	76	76
<b>Low-carbon ferrochromium:<sup>6</sup></b>						
<b>More than 0.5% but not more than 3% carbon:</b>						
Kazakhstan	--	--	--	150	104	378
Russia	100	70	329	215	149	665
South Africa	--	--	--	302	166	610
Total	100	70	329	667	418	1,650
<b>Not more than 0.5% carbon:</b>						
Belgium	--	--	--	35	23	128
Brazil	--	--	--	202	111	559
China	--	--	--	20	12	98
Germany	244	172	1,140	3,460	2,390	15,400
Japan	11	8	49	861	600	4,260
Kazakhstan	--	--	--	2,610	1,840	6,880
Russia	1,660	1,140	5,340	14,500	10,000	45,400
South Africa	--	--	--	500	338	1,530
Turkey	534	385	1,820	1,530	1,090	5,170
Total	2,440	1,700	8,340	23,700	16,400	79,300
<b>All grades:</b>						
Albania	--	--	--	1,500	961	2,110
Belgium	--	--	--	75	46	151
Brazil	--	--	--	202	111	559
China	197	137	347	217	149	446
Germany	244	172	1,140	3,460	2,390	15,400
India	1,540	936	2,150	8,240	5,000	10,600
Japan	11	8	49	861	600	4,260
Kazakhstan	513	353	826	47,100	32,700	68,700
Russia	2,850	1,960	7,370	36,200	24,200	76,400
South Africa	16,900	8,520	18,000	112,000	55,600	111,000
Spain	--	--	--	20	13	33
Sweden	497	323	935	8,310	5,580	15,700
Turkey	1,840	1,220	3,620	22,700	15,000	39,100
Zimbabwe	--	--	--	21,700	12,600	27,200
Total	24,600	13,600	34,400	263,000	155,000	372,000

-- Zero.

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

<sup>2</sup>May include revised data that are not broken out by specific month(s).

<sup>3</sup>Customs 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.

<sup>4</sup>Ferrochromium containing more than 4% carbon.

<sup>5</sup>Ferrochromium containing more than 3% but not more than 4% carbon.

<sup>6</sup>Ferrochromium 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 COUNTRY<sup>1</sup>

Grade and country	June		January–June <sup>2</sup>	
	Gross weight (metric tons)	Value <sup>3</sup> (thousands)	Gross weight (metric tons)	Value <sup>3</sup> (thousands)
Unwrought powders:				
China	85	\$1,490	362	\$5,850
France	67	1,030	423	7,150
Germany	7	238	13	459
Japan	--	--	2	33
Russia	100	1,140	331	3,650
United Kingdom	20	309	289	3,750
Total	279	4,210	1,420	20,900
Waste and scrap:				
Japan	--	--	2	22
Mexico	37	91	257	755
Singapore	--	--	7	267
Taiwan	3	35	3	35
Total	40	125	269	1,080
Other than waste and scrap and unwrought powders:				
Canada	2	20	2	20
China	161	2,250	783	11,300
France	240	3,650	1,290	20,900
Germany	1	170	24	733
Japan	1	16	4	199
Liechtenstein	--	--	(4)	36
Russia	617	6,660	2,980	38,300
Spain	19	205	47	514
Switzerland	--	--	(4)	14
United Kingdom	159	2,260	1,840	25,900
Total	1,200	15,200	6,970	97,900
All grades:				
Canada	2	20	2	20
China	246	3,740	1,150	17,200
France	307	4,680	1,710	28,100
Germany	8	408	37	1,190
Japan	1	16	8	255
Liechtenstein	--	--	(4)	36
Mexico	37	91	257	755
Russia	717	7,800	3,310	41,900
Singapore	--	--	7	267
Spain	19	205	47	514
Switzerland	--	--	(4)	14
Taiwan	3	35	3	35
United Kingdom	179	2,570	2,130	29,700
Total	1,520	19,600	8,660	120,000

-- Zero.

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

<sup>2</sup>May include revised data that are not broken out by specific month(s).

<sup>3</sup>Customs 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.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8  
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2012<sup>1</sup>

Stainless steel product	June		January–June	
	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)
<b>Exports:</b>				
Ingot	2,070	\$10,800	43,800	\$83,500
Flat-rolled (width > 600 mm)	25,400	81,200	153,000	509,000
Flat-rolled (width < 600 mm)	7,370	28,900	43,900	180,000
Bars and rods in irregular coils	571	1,810	3,710	14,200
Other bars and rods	4,090	32,800	24,300	193,000
Wire	1,530	10,200	7,900	54,800
Tubes, pipes, hollow profiles	4,030	33,700	23,100	201,000
Total	45,000	199,000	300,000	1,240,000
Stainless steel scrap	62,100	79,600	297,000	417,000
Grand total	107,000	279,000	597,000	1,650,000
<b>Imports:</b>				
Ingot	13,600	42,700	74,500	246,000
Flat-rolled (width > 600 mm)	30,700	88,200	145,000	434,000
Flat-rolled (width < 600 mm)	4,000	16,800	21,300	92,900
Bars and rods in irregular coils	2,300	10,400	14,600	60,600
Other bars and rods	432	2,170	1,550	9,680
Wire	274	2,010	1,810	13,700
Tubes, pipes, hollow profiles	9,100	70,200	58,100	449,000
Total	60,400	232,000	317,000	1,310,000
Stainless steel scrap	12,900	18,800	88,800	150,000
Grand total	73,300	251,000	405,000	1,460,000

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

<sup>2</sup>Export 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.