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Mineral Industry Surveys

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CHROMIUM IN MAY 2012

On the basis of gross weight, consumption of chromium ferroalloys and metal in May 2012 decreased by 3% compared with consumption in April 2012. Consumption in May 2012 decreased by 4% compared with consumption in the May 2011.

Included in this Mineral Industry Surveys are U.S. salient chromium statistics, U.S. Government stockpile inventory of chromium materials in May 2012, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of May 2012, and U.S. foreign trade data for selected chromium-containing materials in May 2012.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS[1]

(Metric tons, gross weight)

	2011	2012			
	January–December[2]	March	April	May	January–May
Production, stainless steel[3]	2,070,000	163,000	173,000	174,000	846,000
Components of U.S. supply:					
Stainless steel scrap receipts	866,000	71,900	72,500	73,100	364,000
Stainless steel scrap consumption	1,300,000	108,000	110,000	110,000	553,000
Imports for consumption:					
Chromite ore	191,000	38,800	5,000	10,300	99,200
Ferrochromium:					
More than 4% carbon	462,000	46,600	30,100	47,300	216,000
More than 3% but not more than 4% carbon	1,510	--	--	--	140
More than 0.5% but not more than 3% carbon	393	215	--	150	567
Not more than 0.5% carbon	53,700	4,220	3,790	4,530	21,300
Ferrochromium silicon	20,000	1,390	3,200	3,140	13,200
Total ferroalloy imports	538,000	52,500	37,100	55,100	251,000
Chromium metal[4]	13,600	1,570	1,270	1,630	7,140
Stainless steel	605,000	52,200	49,800	63,200	256,000
Stainless steel scrap	169,000	13,700	11,000	10,300	75,800
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	421,000	36,600	37,200	35,900	182,000
Exports:					
Chromite ore	5,250	455	1,290	673	3,800
Chromium ferroalloys:					
High-carbon ferrochromium	4,260	363	448	302	1,520
Low-carbon ferrochromium	1,030	29	31	158	303
Ferrochromium silicon	28	--	--	--	14
Total ferroalloy exports	5,330	391	479	460	1,840
Chromium metal	557	42	53	46	200
Stainless steel	558,000	54,500	51,500	52,600	255,000
Stainless steel scrap	656,000	48,200	49,500	61,600	235,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,890 r	10,000	9,920	10,400	10,400
Government stockpile:					
Chromium ferroalloys	150,000	148,000	147,000	147,000	147,000
Chromium metal	4,230	4,230	4,090	4,090	4,090

[r]Revised. -- Zero.

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

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

[3]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.

[4]Includes 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		
	April	May	January–May[3]
Consumption by end use:			
Steel:			
Carbon steel	348	341	1,660
High-strength low-alloy steel	301	303	1,300
Stainless and heat-resisting steel	32,400	31,100	158,000
Unspecified steel[4]	3,580 r	3,590	18,400
Superalloys	475	470	2,380
Other alloys and uses[5]	110 r	114	548
Total	37,200	35,900	182,000
Total, chromium content	21,400	21,200	106,000
Consumption by material:			
Low-carbon ferrochromium	2,430 r	2,420	12,100
High-carbon ferrochromium	32,100 r	30,900	157,000
Ferrochromium silicon	W	W	W
Chromium metal	255 r	250	1,270
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	37,200	35,900	182,000
Total, chromium content	21,400	21,200	106,000
Consumer stocks:			
Low-carbon ferrochromium	1,700	1,730	1,730
High-carbon ferrochromium	7,420	7,860	7,860
Ferrochromium silicon	W	W	W
Chromium metal	146 r	148	148
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	9,920	10,400	10,400
Total, chromium content	5,860	6,290	6,290

rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes estimates.
[3]May include revised data that are not broken out by specific month(s).
[4]Includes electrical, full alloy, tool, and unspecified steel end uses.
[5]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[1,2]

(Metric tons)

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

[1]Data are rounded to no more than three significant digits.
[2]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 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 METAL[1]

	Chromite ore		Chromium ferroalloys[2]			Chromium metal[3]	
Period	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
2011:							
May	318	$182	831	363	$1,050	49	$1,050
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[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
January–May	3,800	2,580	1,840	1,000	2,530	200	5,480

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes low- and high-carbon ferrochromium and ferrochromium silicon.
[3]Includes chromium metal, waste and scrap, and unwrought powders.
[4]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[1]

(Metric tons)

	2011	2012		
	January–December[2]	April	May	January–May
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
Chromic oxide content	12,600	--	--	1,350
46% or more chromic oxide:				
Gross weight	163,000	5,000	10,300	96,200
Chromic oxide content	90,000	2,300	4,750	46,200
Total, all grades:				
Gross weight	191,000	5,000	10,300	99,200
Chromic oxide content	103,000	2,300	4,750	47,500
Ferrochromium:				
Low-carbon:[3]				
Not more than 0.5% carbon:				
Gross weight	53,700	3,790	4,530	21,300
Chromium content	37,100	2,660	3,130	14,700
More than 0.5% but not more than 3% carbon:				
Gross weight	393	--	150	567
Chromium content	224	--	104	348
Total, low-carbon:				
Gross weight	54,100	3,790	4,680	21,900
Chromium content	37,400	2,660	3,230	15,000
Medium-carbon:[4]				
Gross weight	1,510	--	--	140
Chromium content	855	--	--	76
High-carbon:[5]				
Gross weight	462,000	30,100	47,300	216,000
Chromium content	265,000	19,900	26,700	126,000
Total, all grades:				
Gross weight	518,000	33,900	51,900	238,000
Chromium content	304,000	22,600	29,900	141,000
Chromium metal:				
Unwrought powders	2,720	275	139	1,140
Waste and scrap	574	61	35	229
Other than waste and scrap and unwrought powders	10,300	935	1,460	5,770
Total, all grades	13,600	1,270	1,630	7,140

-- Zero.

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

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

[3]Ferrochromium containing not more than 3% carbon.

[4]Ferrochromium containing more than 3% carbon but not more than 4% carbon.

[5]Ferrochromium 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[1]

Grade and country	May			January–May[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
India	1,440	875	$1,980	6,690	4,070	8,470
Kazakhstan	11,900	8,180	16,700	43,800	30,400	60,600
Russia	3,240	2,160	4,510	20,300	13,200	28,600
South Africa	26,400	12,900	27,200	94,300	46,600	91,200
Spain	--	--	--	20	13	33
Sweden	1,390	931	2,630	7,820	5,260	14,800
Turkey	62	39	86	19,900	13,100	32,100
Zimbabwe	2,930	1,630	3,780	21,700	12,600	27,200
Total	47,300	26,700	56,900	216,000	126,000	265,000
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:						
Kazakhstan	150	104	378	150	104	378
Russia	--	--	--	115	79	336
South Africa	--	--	--	302	166	610
Total	150	104	378	567	348	1,320
Not more than 0.5% carbon:						
Belgium	--	--	--	35	23	128
Brazil	162	98	424	202	111	559
China	--	--	--	20	12	98
Germany	560	392	2,620	3,220	2,210	14,200
Japan	431	300	2,100	850	593	4,210
Kazakhstan	847	584	2,260	2,610	1,840	6,880
Russia	2,190	1,510	6,900	12,900	8,870	40,000
South Africa	--	--	--	500	338	1,530
Turkey	342	246	1,160	991	708	3,350
Total	4,530	3,130	15,500	21,300	14,700	71,000
All grades:						
Albania	--	--	--	1,500	961	2,110
Belgium	--	--	--	75	46	151
Brazil	162	98	424	202	111	559
China	--	--	--	20	12	98
Germany	560	392	2,620	3,220	2,210	14,200
India	1,440	875	1,980	6,690	4,070	8,470
Japan	431	300	2,100	850	593	4,210
Kazakhstan	12,800	8,870	19,300	46,600	32,300	67,900
Russia	5,420	3,660	11,400	33,300	22,300	69,000
South Africa	26,400	12,900	27,200	95,100	47,100	93,300
Spain	--	--	--	20	13	33
Sweden	1,390	931	2,630	7,820	5,260	14,800
Turkey	404	284	1,250	20,900	13,800	35,500
Zimbabwe	2,930	1,630	3,780	21,700	12,600	27,200
Total	51,900	29,900	72,700	238,000	141,000	338,000

-- Zero.

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

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

[3]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.

[4]Ferrochromium containing more than 4% carbon.

[5]Ferrochromium containing more than 3% but not more than 4% carbon.

[6]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[1]

Grade and country	May		January–May[2]	
	Gross weight (metric tons)	Value[3] (thousands)	Gross weight (metric tons)	Value[3] (thousands)
Unwrought powders:				
China	21	$290	277	$4,360
France	65	1,150	356	6,110
Germany	4	133	6	221
Japan	--	--	2	33
Russia	10	128	231	2,520
United Kingdom	39	473	269	3,440
Total	139	2,180	1,140	16,700
Waste and scrap:				
Japan	--	--	2	22
Mexico	35	104	220	664
Singapore	--	--	7	267
Total	35	104	229	953
Other than waste and scrap and unwrought powders:				
China	160	2,650	622	9,090
France	159	2,750	1,050	17,300
Germany	14	238	23	563
Japan	1	16	3	183
Liechtenstein	(4)	19	(4)	36
Russia	660	7,980	2,360	31,600
Spain	--	--	28	308
Switzerland	--	--	(4)	14
United Kingdom	461	6,600	1,680	23,700
Total	1,460	20,300	5,770	82,700
All grades:				
China	181	2,940	899	13,400
France	225	3,900	1,410	23,400
Germany	18	372	29	783
Japan	1	16	8	239
Liechtenstein	(4)	19	(4)	36
Mexico	35	104	220	664
Russia	670	8,110	2,590	34,100
Singapore	--	--	7	267
Spain	--	--	28	308
Switzerland	--	--	(4)	14
United Kingdom	500	7,080	1,950	27,100
Total	1,630	22,500	7,140	100,000

-- Zero.

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

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

[3]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.

[4]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2012[1]

Stainless steel product	May		January–May	
	Gross weight (metric tons)	Value[2] (thousands)	Gross weight (metric tons)	Value[2] (thousands)
Exports:				
Ingot	8,100	$12,300	41,800	$72,700
Flat-rolled (width > 600 mm)	26,800	86,300	128,000	428,000
Flat-rolled (width < 600 mm)	7,080	29,300	36,500	151,000
Bars and rods in irregular coils	704	2,630	3,140	12,400
Other bars and rods	4,200	30,400	20,200	161,000
Wire	1,840	11,400	6,370	44,600
Tubes, pipes, hollow profiles	3,860	32,000	19,100	168,000
Total	52,600	204,000	255,000	1,040,000
Stainless steel scrap	61,600	89,600	235,000	337,000
Grand total	114,000	294,000	489,000	1,370,000
Imports:				
Ingot	17,000	53,500	60,900	204,000
Flat-rolled (width > 600 mm)	27,600	81,800	114,000	346,000
Flat-rolled (width < 600 mm)	3,960	17,500	17,300	76,200
Bars and rods in irregular coils	3,160	13,000	12,300	50,200
Other bars and rods	136	998	1,120	7,510
Wire	332	2,320	1,530	11,700
Tubes, pipes, hollow profiles	11,000	85,600	49,000	378,000
Total	63,200	255,000	256,000	1,070,000
Stainless steel scrap	10,300	18,000	75,800	131,000
Grand total	73,500	273,000	332,000	1,200,000

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