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Mineral Industry Surveys

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CHROMIUM IN SEPTEMBER 2012

On the basis of gross weight, consumption of chromium ferroalloys and metal in September 2012 decreased by 4% compared with consumption in August 2012. Consumption in September 2012 increased by 8% compared with consumption in the September 2011.

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

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

(Metric tons, gross weight)

	2011	2012			
	January–December[2]	July	August	September	January–September
Production, stainless steel[3]	2,070,000	175,000	171,000	163,000	1,520,000
Components of U.S. supply:					
Stainless steel scrap receipts	866,000	71,300	71,600	71,700	650,000
Stainless steel scrap consumption	1,300,000	106,000	109,000	108,000	985,000
Imports for consumption:					
Chromite ore	191,000	7,050	43,000	12,500	201,000
Ferrochromium:					
More than 4% carbon	462,000	32,600	21,300	63,300	355,000
More than 3% but not more than 4% carbon	1,510	--	--	--	140
More than 0.5% but not more than 3% carbon	393	1,230	--	1,000	2,900
Not more than 0.5% carbon	53,700	5,190	2,550	5,040	36,500
Ferrochromium silicon	20,000	3,100	--	3,000	19,300
Total ferroalloy imports	538,000	42,100	23,900	72,300	414,000
Chromium metal[4]	13,600	1,480	1,280	911	12,300
Stainless steel	605,000	65,300	62,800	50,300	495,000
Stainless steel scrap	169,000	9,710	10,000	9,090	118,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	422,000	34,500 r	37,400 r	35,900	325,000
Exports:					
Chromite ore	5,250	886	1,410	605	18,100
Chromium ferroalloys:					
High-carbon ferrochromium	4,260	196	82	463	2,690
Low-carbon ferrochromium	1,030	113	23	40	537
Ferrochromium silicon	28	--	--	--	56
Total ferroalloy exports	5,330	309	105	503	3,280
Chromium metal	557	43	48	36	360
Stainless steel	558,000	38,600	61,100	50,700	450,000
Stainless steel scrap	656,000	48,800	57,700	54,200	458,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,920	10,100 r	10,300 r	9,930	9,930
Government stockpile:					
Chromium ferroalloys	150,000	147,000	147,000	146,000	146,000
Chromium metal	4,230	4,090	4,090	4,090	4,090

rRevised. -- 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		
	August	September	January–September[3]
Consumption by end use:			
Steel:			
Carbon steel	266 r	272	2,590
High-strength low-alloy steel	139	140	1,860
Stainless and heat-resisting steel	33,000	31,500	284,000
Unspecified steel[4]	3,440	3,370	31,700
Superalloys	500	487	4,670
Other alloys and uses[5]	107	109	984
Total	37,400 r	35,900	325,000
Total, chromium content	21,500 r	20,700	189,000
Consumption by material:			
Low-carbon ferrochromium	2,380 r	2,360	21,800
High-carbon ferrochromium	32,500	31,000	281,000
Ferrochromium silicon	W	W	W
Chromium metal	226	221	2,160
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	37,400 r	35,900	325,000
Total, chromium content	21,500 r	20,700	189,000
Consumer stocks:			
Low-carbon ferrochromium	1,670 r	1,660	1,660
High-carbon ferrochromium	7,780	7,470	7,470
Ferrochromium silicon	W	W	W
Chromium metal	132	134	134
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,300 r	9,930	9,930
Total, chromium content	6,040	5,870	5,870

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:			
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
September	95,200	50,800	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]

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:							
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
September	605	427	503	268	788	36	1,090
January–September	18,100	8,120	3,280	1,780	4,650	360	10,300

[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]	August	September	January–September
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	40,000	12,500	193,000
Chromic oxide content	90,000	18,500	6,640	94,200
Total, all grades:				
Gross weight	191,000	43,000	12,500	201,000
Chromic oxide content	103,000	19,900	6,640	97,500
Ferrochromium:				
Low-carbon:[3]				
Not more than 0.5% carbon:				
Gross weight	53,700	2,550	5,040	36,500
Chromium content	37,100	1,780	3,470	25,200
More than 0.5% but not more than 3% carbon:				
Gross weight	393	--	1,000	2,900
Chromium content	224	--	690	1,960
Total, low-carbon:				
Gross weight	54,100	2,550	6,040	39,400
Chromium content	37,400	1,780	4,160	27,200
Medium-carbon:[4]				
Gross weight	1,510	--	--	140
Chromium content	855	--	--	76
High-carbon:[5]				
Gross weight	462,000	21,300	63,300	355,000
Chromium content	265,000	11,100	37,500	207,000
Total, all grades:				
Gross weight	518,000	23,900	69,300	395,000
Chromium content	304,000	12,900	41,700	234,000
Chromium metal:				
Unwrought powders	2,720	373	109	2,180
Waste and scrap	574	53	20	384
Other than waste and scrap and unwrought powders	10,300	858	782	9,770
Total, all grades	13,600	1,280	911	12,300

-- 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	September			January–September[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	--	--	--	1,800	1,160	$2,630
China	--	--	--	197	137	347
India	912	564	$1,150	12,400	7,560	16,300
Kazakhstan	20,100	13,900	26,100	80,000	55,300	110,000
Russia	2,430	1,570	3,070	27,300	17,900	38,300
South Africa	28,000	14,000	27,700	168,000	83,300	166,000
Spain	--	--	--	20	13	33
Sweden	800	508	1,500	9,930	6,630	18,600
Turkey	8,010	5,320	11,800	30,700	20,200	47,900
Zimbabwe	3,030	1,680	3,330	24,700	14,300	30,500
Total	63,300	37,500	74,700	355,000	207,000	430,000
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	400	276	1,060	1,350	932	3,610
Russia	600	414	1,660	1,180	814	3,410
South Africa	--	--	--	302	166	610
Total	1,000	690	2,720	2,900	1,960	7,720
Not more than 0.5% carbon:						
Belgium	--	--	--	35	23	128
Brazil	--	--	--	256	143	703
China	20	13	91	60	38	295
France	1	1	3	1	1	3
Germany	60	43	193	4,700	3,260	21,000
Japan	50	35	246	1,450	1,010	7,130
Kazakhstan	--	--	--	3,830	2,680	10,400
Russia	4,610	3,160	14,200	23,100	15,900	71,900
South Africa	--	--	--	500	338	1,530
Turkey	301	216	1,040	2,550	1,830	8,700
Total	5,040	3,470	15,800	36,500	25,200	122,000
All grades:						
Albania	--	--	--	1,800	1,160	2,630
Belgium	--	--	--	75	46	151
Brazil	--	--	--	256	143	703
China	20	13	91	326	221	741
France	1	1	3	1	1	3
Germany	60	43	193	4,700	3,260	21,000
India	912	564	1,150	12,400	7,560	16,300
Japan	50	35	246	1,450	1,010	7,130
Kazakhstan	20,500	14,200	27,200	85,100	58,900	124,000
Russia	7,640	5,150	18,900	51,700	34,700	114,000
South Africa	28,000	14,000	27,700	169,000	83,800	169,000
Spain	--	--	--	20	13	33
Sweden	800	508	1,500	9,930	6,630	18,600
Turkey	8,310	5,530	12,900	33,300	22,100	56,600
Zimbabwe	3,030	1,680	3,330	24,700	14,300	30,500
Total	69,300	41,700	93,200	395,000	234,000	560,000

-- 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.

TABLE 6—Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2012, BY GRADE AND COUNTRY[1]

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	September		January–September[2]	
	Gross weight (metric tons)	Value[3] (thousands)	Gross weight (metric tons)	Value[3] (thousands)
Unwrought powders:				
China	107	$1,520	624	$9,400
France	(4)	2	518	8,790
Germany	--	--	17	617
Japan	--	--	2	33
Russia	--	--	571	6,330
United Kingdom	2	24	449	5,900
Total	109	1,540	2,180	31,100
Waste and scrap:				
China	1	27	1	27
Japan	1	10	12	197
Mexico	19	42	350	970
Singapore	--	--	18	495
Taiwan	--	--	3	35
Total	20	79	384	1,720
Other than waste and scrap and unwrought powders:				
Canada	--	--	2	20
China	10	220	1,130	15,500
France	191	2,520	1,880	29,800
Germany	1	72	50	1,230
Japan	--	--	6	361
Liechtenstein	(4)	6	(4)	42
Netherlands	13	124	13	124
Russia	260	2,950	4,000	49,200
Spain	--	--	60	652
Sweden	--	--	(4)	16
Switzerland	--	--	(4)	14
United Kingdom	307	3,910	2,630	36,300
Total	782	9,800	9,770	133,000
All grades:				
Canada	--	--	2	20
China	118	1,770	1,750	25,000
France	191	2,520	2,400	38,600
Germany	1	72	67	1,850
Japan	1	10	20	591
Liechtenstein	(4)	6	(4)	42
Mexico	19	42	350	970
Netherlands	13	124	13	124
Russia	260	2,950	4,570	55,500
Singapore	--	--	18	495
Spain	--	--	60	652
Sweden	--	--	(4)	16
Switzerland	--	--	(4)	14
Taiwan	--	--	3	35
United Kingdom	309	3,930	3,080	42,200
Total	911	11,400	12,300	166,000

-- 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	September		January–September	
	Gross weight (metric tons)	Value[2] (thousands)	Gross weight (metric tons)	Value[2] (thousands)
Exports:				
Ingot	8,180	$12,800	70,700	$126,000
Flat-rolled (width > 600 mm)	25,200	80,100	225,000	736,000
Flat-rolled (width < 600 mm)	7,620	29,200	65,300	267,000
Bars and rods in irregular coils	775	2,490	5,660	20,900
Other bars and rods	3,760	27,700	36,800	284,000
Wire	1,220	8,430	11,900	82,300
Tubes, pipes, hollow profiles	3,970	33,400	34,800	302,000
Total	50,700	194,000	450,000	1,820,000
Stainless steel scrap	54,200	64,200	458,000	604,000
Grand total	105,000	258,000	908,000	2,420,000
Imports:				
Ingot	10,100	30,100	110,000	357,000
Flat-rolled (width > 600 mm)	24,900	66,200	239,000	694,000
Flat-rolled (width < 600 mm)	2,800	12,000	31,600	136,000
Bars and rods in irregular coils	2,450	8,430	21,900	90,400
Other bars and rods	257	1,350	2,420	15,100
Wire	375	3,220	3,020	23,400
Tubes, pipes, hollow profiles	9,370	68,900	87,400	751,000
Total	50,300	190,000	495,000	2,070,000
Stainless steel scrap	9,090	12,100	118,000	191,000
Grand total	59,400	202,000	613,000	2,260,000

[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.