



Mineral Industry Surveys

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CHROMIUM IN JULY 2007

On the basis of gross weight, consumption of chromium ferroalloys and metal in July 2007 decreased 4% compared with consumption in June 2007, according to the U.S. Geological Survey.

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

chromium materials in July 2007, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of July 2007, and U.S. foreign trade data for selected chromium-containing materials in June 2007.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2006		2007			
	January-December ²	May	June	Second quarter ²	July	January-July ²
Production:						
Stainless steel production ³	2,460,000	191,000	218,000	609,000	151,000	1,380,000 ⁴
Components of U.S. supply:						
Stainless steel scrap receipts	1,050,000	78,100	84,800	241,000	71,900	585,000
Stainless steel scrap consumption	1,500,000	115,000	123,000	352,000	114,000	860,000
Imports for consumption:						
Chromite ore	150,000	3,420	470	7,690	5,420	58,700
Ferrochromium:						
More than 4% carbon	393,000	49,800	14,500	100,000	18,400	219,000
More than 0.5%, but not more than 3% carbon	29	--	--	600	514	5,010
Not more than 0.5% carbon	28,100	2,990	1,200	6,870	1,750	17,800
Ferrochromium silicon	38,300	--	--	5,690	10,800	24,100
Total ferroalloy imports	459,000	52,700	15,700	113,000	31,400	266,000
Chromium metal ⁵	10,900	1,140	1,400	3,780	1,200	7,200
Stainless steel	872,000	74,300	76,900	220,000	74,000	509,000
Stainless steel scrap	180,000	13,600	11,400	37,000	5,380	75,600
Distribution of U.S. supply:						
Consumption, industry, chromium ferroalloys and metal	553,000	37,200	38,400	113,000	36,800	260,000
Exports:						
Chromite ore	53,900	13,100	790	25,900	844	28,900
Chromium ferroalloys:						
High-carbon ferrochromium	18,800	939	1,550	3,830	869	19,400
Low-carbon ferrochromium	16,600	3,010	248	3,650	238	12,200
Ferrochromium silicon	248	110	29	221	21	274
Total ferroalloy exports	35,700	4,060	1,830	7,700	1,130	31,900
Chromium metal	1,020	105	75	320	102	724
Stainless steel	410,000	54,600	43,400	143,000	35,400	299,000
Stainless steel scrap	506,000	69,800	77,300	205,000	70,700	499,000
Stocks at end of period:						
Consumer, industry, chromium ferroalloys and metal	XX	12,800	12,000	36,400	11,900	XX
Government stockpile:						
Chromium ferroalloys	XX	591,000	264,000	818,000	264,000	XX
Chromium metal	XX	5,280	5,280	15,900	5,150	XX

XX Not applicable. -- Zero.

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

²May include revised data.

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 revised data that are not broken out by specific month.

⁵Includes waste and scrap and other.

TABLE 2
U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS IN 2007^{1,2}

(Metric tons, gross weight unless otherwise noted)

	June	July	January- July ³
Consumption by end use:			
Alloy uses:			
Iron alloys:			
Steel:			
Carbon steel	421	381	2,340
High-strength low-alloy steel	503	499	3,260
Stainless and heat-resisting steel	34,500	32,200	230,000
Full alloy steel	979	1,690	10,300
Electrical steel	W	W	W
Tool steel	427	419	3,040
Unspecified steel	W	W	W
Cast irons	W	W	W
Superalloys	602	620	4,780
Other alloys ⁴	32	44	248
Total	38,400	36,800	260,000
Total, chromium content	22,000	21,400	152,000
Consumption by material:			
Low-carbon ferrochromium	1,800	1,980	13,800
High-carbon ferrochromium	33,600	31,900	223,000
Ferrochromium silicon	W	W	W
Chromium metal	304	356	2,490
Chromite ore	W	W	W
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	38,400	36,800	254,000
Total, chromium content	22,000	21,400	152,000
Consumer stocks:			
Low-carbon ferrochromium	1,980	1,930	XX
High-carbon ferrochromium	8,850	8,810	XX
Ferrochromium silicon	923	933	XX
Chromium metal	143	154	XX
Chromite ore	24	5	XX
Chromium-aluminum alloy	W	W	XX
Other chromium materials	W	W	XX
Total	12,000	11,900	XX
Total, chromium content	7,020	7,030	XX

W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

²Includes estimates.

³May include revised data.

⁴Includes 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	
2006:			
July	270,000	137,000	5,280
August	267,000	137,000	5,280
September	265,000	135,000	5,280
October	263,000	133,000	5,280
November	255,000	132,000	5,280
December	229,000	118,000	5,280
2007:			
January	223,000	111,000	5,280
February	215,000	108,000	5,280
March	204,000	98,900	5,280
April	191,000	94,900	5,280
May	177,000	91,300	5,280
June	177,000	86,700	5,280
July	177,000	86,700	5,150

¹Data are rounded to no more than three significant digits.

²These Government stocks are reported by the Defense National Stockpile Center in Inventory of Stockpile Materials R-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 R-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 R-1 report excludes chromium materials that are committed and awaiting shipment.

Source: Defense National Stockpile Center.

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)
2006:							
June	8,160	\$825	6,300	3,750	\$5,660	66	\$1,380
July	8,780	725	8,570	5,170	7,060	95	1,800
August	6,940	5,550	2,380	1,410	3,000	109	2,270
September	2,280	309	1,440	801	2,060	109	1,910
October	445	157	2,050	1,240	2,360	95	1,830
November	22,700	1,240	2,560	1,610	3,650	85	1,720
December	286	116	7,380	4,410	8,550	62	1,490
January-December	53,900	10,200	35,700	21,300	38,100	1,020	21,300
2007:							
January	455	185	5,410	3,330	6,050	107	1,990
February	821	361	16,300	11,100	15,500	115	1,600
March	899	368	1,320	745	1,620	80	1,600
April	12,000	748	1,820	1,070	2,310	140	2,490
May	13,100	1,150	4,060	2,540	5,740	105	1,440
June	790	308	1,830	1,040	2,680	75	1,520
January-June	28,100	3,120	30,800	19,800	33,900	622	10,600

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

²Includes low-, medium-, and high-carbon ferrochromium and ferrochromium silicon.

³Includes chromium metal waste and scrap and unwrought powders.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND CHROMIUM METAL¹

(Metric tons)

	2006	2007		
	January-December ²	May	June	January-June ²
Chromite ore:				
Not more than 40%:				
Gross weight	117	--	--	5
Chromic oxide content	45	--	--	2
More than 40% but less than 46% chromic oxide:				
Gross weight	3,810	96	96	26,100
Chromic oxide content	1,750	44	44	12,000
46% or more chromic oxide:				
Gross weight	146,000	3,330	374	27,300
Chromic oxide content	76,300	1,530	176	12,700
Total, all grades:				
Gross weight	150,000	3,420	470	53,300
Chromic oxide content	78,100	1,580	220	24,700
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5%:				
Gross weight	28,100	2,990	1,200	16,000
Chromium content	19,300	2,060	801	10,900
More than 0.5% but not more than 3%:				
Gross weight	29	--	--	4,500
Chromium content	23	--	--	2,540
Total, low-carbon:				
Gross weight	28,100	2,990	1,200	20,500
Chromium content	19,300	2,060	801	13,500
High-carbon: ⁴				
Gross weight	393,000	49,800	14,500	201,000
Chromium content	230,000	25,000	7,210	112,000
Total, all grades:				
Gross weight	421,000	52,700	15,700	221,000
Chromium content	249,000	27,000	8,010	126,000
Chromium metal:				
Unwrought powders	1,250	78	81	578
Waste and scrap	90	17	71	94
Other than waste and scrap and unwrought powders	9,540	1,040	1,250	5,330
Total, all grades	10,900	1,140	1,400	6,000

-- Zero.

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

²May include revised data.

³Ferrochromium containing not more than 3% carbon.

⁴Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2007,
BY GRADE AND BY COUNTRY¹

Grade and country	June			January-June 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						
India	323	195	\$348	377	230	\$375
Kazakhstan	133	91	234	51,500	36,200	54,900
Mexico	20	14	32	20	14	32
Russia	--	--	--	10,000	6,300	8,670
South Africa	14,000	6,900	10,200	127,000	63,000	80,800
Sweden	20	14	53	20	14	53
Switzerland	--	--	--	3,500	1,680	2,130
Tajikistan	5	3	9	5	3	9
Zimbabwe	--	--	--	8,070	4,840	8,130
Total	14,500	7,210	10,900	201,000	112,000	155,000
Low-carbon ferrochromium:⁵						
Not more than 0.5% carbon:						
Brazil	--	--	--	2	1	6
China	--	--	--	225	148	479
Germany	370	259	817	3,340	2,340	7,570
Japan	455	304	850	2,490	1,670	4,890
Kazakhstan	--	--	--	1,700	1,190	2,870
Russia	80	56	187	7,470	5,100	12,600
South Africa	296	182	529	718	427	1,050
Sweden	--	--	--	68	46	139
Turkey	--	--	--	8	5	26
Total	1,200	801	2,380	16,000	10,900	29,600
More than 0.5% but not more than 3%:						
Kazakhstan	--	--	--	600	419	1,090
South Africa	--	--	--	3,900	2,120	3,860
Total	--	--	--	4,500	2,530	4,950
All grades:						
Brazil	--	--	--	2	1	6
China	--	--	--	225	148	479
Germany	370	259	817	3,340	2,340	7,570
India	323	195	348	377	230	375
Japan	455	304	850	2,490	1,670	4,890
Kazakhstan	133	91	234	53,800	37,800	58,900
Mexico	20	14	32	20	14	32
Russia	80	56	187	17,500	11,400	21,200
South Africa	14,300	7,080	10,700	132,000	65,600	85,700
Sweden	20	14	53	88	60	192
Switzerland	--	--	--	3,500	1,680	2,130
Tajikistan	5	3	9	5	3	9
Turkey	--	--	--	8	5	26
Zimbabwe	--	--	--	8,070	4,840	8,130
Total	15,700	8,010	13,200	221,000	126,000	190,000

-- Zero.

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

²May include revised data.

³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges

⁴Ferrochromium containing more than 4% carbon.

⁵Ferrochromium containing not more than 3% carbon.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2007,
BY GRADE AND BY COUNTRY¹

Grade and country	June		January-June ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
China	24	\$497	90	\$1,670
France	3	23	6	43
Germany	--	--	12	71
Japan	(4)	11	31	1,010
Russia	26	345	199	1,980
Spain	--	--	16	86
United Kingdom	28	261	224	1,470
Total	81	1,140	578	6,330
Waste and scrap:				
Germany	2	42	16	63
Japan	--	--	7	58
Korea, Republic of	--	--	(4)	8
Mexico	65	379	65	379
Singapore	4	102	4	102
Taiwan	--	--	2	28
Total	71	523	94	637
Other than waste and scrap and unwrought powders:				
China	241	1,670	1,290	10,000
France	152	1,330	1,160	10,300
Germany	(4)	35	66	990
Hong Kong	--	--	(4)	8
Italy	(4)	8	(4)	15
Japan	15	49	17	98
Netherlands	--	--	7	31
Russia	646	4,510	2,110	14,200
Switzerland	--	--	(4)	5
Taiwan	--	--	5	9
United Kingdom	192	1,500	665	5,220
Total	1,250	9,110	5,330	40,800
All grades:				
China	265	2,170	1,380	11,700
France	155	1,360	1,170	10,400
Germany	2	77	94	1,120
Hong Kong	--	--	(4)	8
Italy	(4)	8	(4)	15
Japan	16	60	55	1,160
Korea, Republic of	--	--	(4)	8
Mexico	65	379	65	379
Netherlands	--	--	7	31
Russia	673	4,860	2,310	16,100
Singapore	4	102	4	102
Spain	--	--	16	86
Switzerland	--	--	(4)	5
Taiwan	--	--	6	38
United Kingdom	220	1,770	889	6,960
Total	1,400	10,800	6,000	48,100

-- Zero.

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

²May include revised data.

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. TRADE OF STAINLESS STEEL, BY PRODUCT, IN 2007¹

Stainless steel product	June		January-June	
	Gross weight (metric tons)	Value ² (thousands)	Gross weight (metric tons)	Value ² (thousands)
Exports:				
Ingot	1,580	\$12,700	7,960	\$55,000
Flat-rolled (width > 600 mm)	25,100	70,000	148,000	444,000
Flat-rolled (width < 600 mm)	7,910	39,400	54,900	291,000
Bars and rods in irregular coils	660	3,710	4,850	25,500
Other bars and rods	3,420	26,100	20,000	142,000
Wire	993	6,880	4,620	32,400
Tubes, pipes, hollow profiles	3,710	28,100	22,600	167,000
Total	43,400	187,000	263,000	1,160,000
Stainless steel scrap	77,300	183,000	428,000	959,000
Grand total	121,000	369,000	691,000	2,120,000
Imports:				
Ingot	12,400	73,300	68,300	335,000
Flat-rolled (width > 600 mm)	35,900	176,000	187,000	810,000
Flat-rolled (width < 600 mm)	3,400	19,600	21,900	122,000
Bars and rods in irregular coils	2,090	12,500	15,200	74,300
Other bars and rods	8,920	52,100	53,600	285,000
Wire	3,340	23,900	21,900	137,000
Tubes, pipes, hollow profiles	10,900	85,800	67,600	498,000
Total	76,900	443,000	435,000	2,260,000
Stainless steel scrap	11,400	22,900	70,200	114,000
Grand total	88,400	466,000	505,000	2,380,000

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

²Export value is free alongside ship (f.a.s.). 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.