



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

Lisa Mersdorf (Data)
Telephone: (703) 648-7941
Fax: (703) 648-7975
E-mail: lmersdorf@usgs.gov

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

CHROMIUM IN FEBRUARY 2009

On the basis of gross weight, consumption of chromium ferroalloys and metal in February 2009 decreased slightly compared with revised consumption in January 2009, 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 February 2009, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of February 2009, and U.S. foreign trade data for selected chromium-containing materials in January 2009.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2008		2009		
	December	January- December ²	January	February	January- February
Production:					
Stainless steel production ³	68,300	1,930,000	124,000	151,000	276,000
Components of U.S. supply:					
Stainless steel scrap receipts	64,200	858,000	76,000 ^r	74,400	150,000
Stainless steel scrap consumption	92,300	1,330,000	113,000 ^r	116,000	229,000
Imports for consumption:					
Chromite ore	24,100	197,000	5,200	(4)	5,200 ⁵
Ferrochromium:					
More than 4% carbon	38,700	469,000	3,640	(4)	3,640 ⁵
More than 3% carbon but not more than 4% carbon	184	344	221	(4)	221 ⁵
More than 0.5%, but not more than 3% carbon	408	2,250	162	(4)	162 ⁵
Not more than 0.5% carbon	3,190	37,000	1,500	(4)	1,500 ⁵
Ferrochromium silicon	1,680	24,200	--	(4)	-- ⁵
Total ferroalloy imports	44,200	533,000	5,520	(4)	5,520 ⁵
Chromium metal ⁶	421	13,100	247	(4)	247 ⁵
Stainless steel	41,800	783,000	42,300	(4)	42,300 ⁵
Stainless steel scrap	4,410	140,000	6,320	(4)	6,320 ⁵
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	28,200	417,000	34,000	33,300	67,300
Exports:					
Chromite ore	475	7,000	23	(4)	23 ⁵
Chromium ferroalloys:					
High-carbon ferrochromium	98	10,800	228	(4)	228 ⁵
Low-carbon ferrochromium	118	13,400	246	(4)	246 ⁵
Ferrochromium silicon	--	216	--	(4)	-- ⁵
Total ferroalloy exports	217	24,500	473	(4)	473 ⁵
Chromium metal	27	998	38	(4)	38 ⁵
Stainless steel	25,300	471,000	23,100	(4)	23,100 ⁵
Stainless steel scrap	61,300	1,000,000	64,000	(4)	64,000 ⁵
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	8,920	XX	10,300	10,200	XX
Government stockpile:					
Chromium ferroalloys	206,000	XX	204,000	206,000	XX
Chromium metal	4,820	XX	4,820	4,810	XX

¹Revised. XX Not applicable. -- Zero.

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

³May include revised data that are not broken out by specific month.

⁴Data 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.

⁵Data to be published in a subsequent issue.

⁶January data only.

⁷Includes 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)

	2008	2009		
	January- December ³	January	February	January- February
Consumption by end use:				
Alloy uses:				
Steel:				
Carbon steel	3,960	270	285	555
High-strength low-alloy steel	3,130	148	147	295
Stainless and heat-resisting steel	344,000	28,500	27,900	56,400
Full alloy steel	18,300	1,410	1,260	2,660
Tool steel	4,990	416	416	832
Steel end use, not reported by grade	28,200	2,080 ^r	2,110	4,190
Superalloys	5,580	443	498	941
Other alloys and uses ⁴	8,460	736	688	1,420
Total	417,000	34,000	33,300	67,300
Total, chromium content	243,000	20,100	19,500	39,600
Consumption by material:				
Low-carbon ferrochromium	30,800	2,320 ^r	2,320	4,640
High-carbon ferrochromium	348,000	28,400	28,000	56,300
Ferrochromium silicon	W	W	W	W
Chromium metal ⁵	3,010	235	280	515
Chromite ore	W	W	W	W
Chromium-aluminum alloy	W	W	W	W
Other chromium materials	W	W	W	W
Total	417,000	34,000	33,300	67,300
Total, chromium content	243,000	20,100	19,500	39,600
Consumer stocks:				
Low-carbon ferrochromium	XX	1,710 ^r	1,690	XX
High-carbon ferrochromium	XX	7,320	7,120	XX
Ferrochromium silicon	XX	1,120	1,180	XX
Chromium metal	XX	133	185	XX
Chromium-aluminum alloy	XX	W	W	XX
Other chromium materials	XX	W	W	XX
Total	XX	10,300	10,200	XX
Total, chromium content	XX	6,100^r	6,010	XX

^rRevised. 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 that are not broken out by specific month.

⁴Includes cast irons, welding and alloy hard-facing rods and materials, wear- and corrosion-resistant alloys, and aluminum, copper, magnetic, nickel, and other alloys.

⁵Includes waste and scrap and other.

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	
2008:			
February	95,000	50,800	4,940
March	93,600	48,100	4,940
April	93,600	46,900	4,940
May	93,500	45,800	4,930
June	93,600	45,100	4,930
July	140,000	66,700	4,890
August	140,000	66,700	4,850
September	139,000	66,700	4,820
October	139,000	66,700	4,820
November	139,000	66,700	4,820
December	139,000	66,700	4,820
2009:			
January	138,000	66,700	4,820
February	139,000	66,700	4,810

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 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 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)
2008:							
January	482	\$255	2,040	957	\$4,470	96	\$1,600
February	657	424	2,210	905	3,650	30	845
March	582	282	2,260	946	3,600	131	1,940
April	778	411	4,680	1,810	6,500	80	1,610
May	369	242	4,370	2,040	10,800	129	2,040
June	325	197	2,740	1,180	6,020	128	2,540
July	818	472	899	323	1,130	110	2,210
August	678	372	1,470	544	2,060	123	2,490
September	468	446	713	291	896	33	1,460
October	958	637	2,180	927	2,830	65	1,600
November	413	371	699	254	784	45	1,120
December	475	256	217	111	304	27	984
January-December	7,000	4,370	24,500	10,300	43,100	998	20,400
2009, January	23	72	473	210	604	38	1,130

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.

Source: U.S. Census Bureau.

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

(Metric tons)

	2008			2009 January
	November	December	January- December ²	
Chromite ore:				
Not more than 40%:				
Gross weight	--	--	--	--
Chromic oxide content	--	--	--	--
More than 40% but less than 46% chromic oxide:				
Gross weight	1,470	24,000	38,400	35
Chromic oxide content	646	11,100	17,600	16
46% or more chromic oxide:				
Gross weight	20,900	116	159,000	5,160
Chromic oxide content	10,800	54	76,400	2,390
Total, all grades:				
Gross weight	22,400	24,100	197,000	5,200
Chromic oxide content	11,400	11,100	94,000	2,410
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5%:				
Gross weight	2,640	3,190	37,000	1,500
Chromium content	1,820	2,160	25,300	974
More than 0.5% but not more than 3%:				
Gross weight	--	408	2,250	162
Chromium content	--	286	1,450	112
Total, low-carbon:				
Gross weight	2,640	3,600	39,300	1,660
Chromium content	1,820	2,450	26,700	1,090
Medium-carbon: ⁴				
Gross weight	--	184	344	221
Chromium content	--	114	204	119
High-carbon: ⁵				
Gross weight	12,100	38,700	469,000	3,640
Chromium content	6,400	25,600	270,000	1,970
Total, all grades:				
Gross weight	14,800	42,500	509,000	5,520
Chromium content	8,220	28,100	297,000	3,170
Chromium metal:				
Unwrought powders	51	53	1,050	32
Waste and scrap	(6)	7	523	(6)
Other than waste and scrap and unwrought powders	527	361	11,500	216
Total, all grades:	579	421	13,100	247

-- 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.

³Ferrochromium containing not more than 3% carbon.

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

⁵Ferrochromium containing more than 4% carbon.

⁶Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2009,
BY GRADE AND BY COUNTRY¹

Grade and country	January		
	Gross weight (metric tons)	Chromium content (metric tons)	Value ² (thousands)
High-carbon ferrochromium:³			
China	40	32	\$142
India	1,500	905	1,400
Russia	40	26	43
South Africa	2,030	979	1,430
Sweden	38	26	148
Total	3,640	1,970	3,160
Medium-carbon ferrochromium, ⁴ Russia	221	119	118
Low-carbon ferrochromium:⁵			
More than 0.5% but not more than 3%:			
Kazakhstan	100	70	325
Russia	42	31	177
South Africa	20	11	18
Total	162	112	520
Not more than 0.5% carbon:			
China	80	49	309
Germany	3	2	12
Japan	233	159	1,320
Kazakhstan	53	35	193
Russia	477	338	1,760
South Africa	605	360	1,040
Sweden	46	30	168
Total	1,500	974	4,790
All grades:			
China	120	81	451
Germany	3	2	12
India	1,500	905	1,400
Japan	233	159	1,320
Kazakhstan	153	105	518
Russia	780	514	2,090
South Africa	2,650	1,350	2,480
Sweden	84	56	315
Total	5,520	3,170	8,590

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

²Customs 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.

³Ferrochromium containing more than 4% carbon.

⁴Ferrochromium containing more than 3% carbon but not 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 2009,
BY GRADE AND BY COUNTRY¹

Grade and country	January	
	Gross weight (metric tons)	Value ² (thousands)
Unwrought powders:		
China	20	\$277
United Kingdom	12	157
Total	32	433
Waste and scrap, Germany	(3)	3
Other than waste and scrap and unwrought powders:		
China	55	970
France	38	524
Germany	19	162
Japan	1	18
Kazakhstan	94	272
Russia	(3)	38
United Kingdom	8	108
Total	216	2,090
All grades:		
China	75	1,250
France	38	524
Germany	19	164
Japan	1	18
Kazakhstan	94	272
Russia	(3)	38
United Kingdom	19	265
Total	247	2,530

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

²Customs 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.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2009¹

Stainless steel product	January	
	Gross weight (metric tons)	Value ² (thousands)
Exports:		
Ingot	1,520	\$9,020
Flat-rolled (width > 600 mm)	11,800	33,500
Flat-rolled (width < 600 mm)	3,490	15,500
Bars and rods in irregular coils	257	1,470
Other bars and rods	2,700	19,900
Wire	660	5,070
Tubes, pipes, hollow profiles	2,680	20,700
Total	23,100	105,000
Stainless steel scrap	64,000	36,900
Grand total	87,100	142,000
Imports:		
Ingot	6,930	23,500
Flat-rolled (width > 600 mm)	14,800	40,400
Flat-rolled (width < 600 mm)	2,300	10,800
Bars and rods in irregular coils	1,130	4,240
Other bars and rods	6,070	31,500
Wire	2,610	12,700
Tubes, pipes, hollow profiles	8,430	75,600
Total	42,300	199,000
Stainless steel scrap	6,320	3,770
Grand total	48,600	203,000

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.