

Mineral Industry Surveys

For information, contact:

Lisa A. Corathers, Silicon Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4973, Fax: (703) 648-7757
E-mail: lcorathers@usgs.gov

Martha L. Jackson (Data)
Telephone: (703) 648-7944
Fax: (703) 648-7975
E-mail: mjackson@usgs.gov

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

SILICON IN APRIL 2009

Preliminary data for April 2009 indicate that domestic production and net shipments of silicon ferroalloys, on a gross-weight basis, were each 9% higher, respectively, compared with those in March 2009, according to the U.S. Geological Survey. Ending stocks were 4% higher than those at the end of March. Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

Production and net shipments of silicon ferroalloys during the first 4 months decreased by 13% and 11%, respectively, compared with those during the same period in 2008. Production-related statistics for silicon metal were concealed to avoid disclosing company proprietary data.

On a gross-weight basis, U.S. ferrosilicon and silicon metal exports in March 2009 were 28% lower and 7% higher,

respectively, than those in February 2009. U.S. ferrosilicon and silicon metal exports in the first quarter of 2009 were slightly lower and 20% lower, respectively, than those in the first quarter of 2008.

On a gross-weight basis, U.S. ferrosilicon and silicon metal imports in March 2009 were 68% lower and 5% higher, respectively, than those in February 2009. U.S. ferrosilicon and silicon metal imports in the first quarter of 2009 were 71% and 48% lower, respectively, than those during the first quarter of 2008.

Prices

Prices for silicon materials in April 2009, in cents per pound, silicon content, are listed below.

50% Ferrosilicon prices¹

<u>Price Range</u>	<u>Average Low, Mid, and High Prices</u>
60.00-65.00	60.00-62.50-65.00

75% Ferrosilicon prices²

<u>Price Range</u>	<u>Average Price</u>
52.00-56.00	53.80

Silicon metal prices²

<u>Price Range</u>	<u>Average Price</u>
115.00-123.00	118.70

¹Source: Ryan's Notes, North American transaction price. Average prices reported for the price range.

²Source: Platts Metals Week, dealer import price. Average price reported for all transactions during the month.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2009^{1,2,3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks
	April	Year to date	April	Year to date	April 30
Ferrosilicon, all grades ^{5,6}	21,400	82,400	17,800	68,400	26,300
Silicon metal, excludes semiconductor grades	W	W	W	W	W

W Withheld to avoid disclosing company proprietary data.

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

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁶Includes miscellaneous silicon alloys and other silicon products.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN MARCH 2009^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Argentina	--	--	--	4	3	\$12,000
Canada	294	176	\$434,000	788	473	1,060,000
Colombia	--	--	--	27	24	77,000
Mexico	144	105	233,000	826	618	1,140,000
Netherlands	--	--	--	3	2	3,270
New Zealand	3	3	5,350	3	3	5,350
Turkey	10	7	22,200	10	7	22,200
Total	451	291	695,000	1,660	1,130	2,320,000
Other ferrosilicon:						
Australia	--	--	--	40	20	80,900
Canada	93	46	149,000	430	215	596,000
Colombia	--	--	--	11	5	23,800
Egypt	--	--	--	60	28	126,000
Germany	--	--	--	51	25	84,800
India	--	--	--	9	4	14,000
Mexico	98	49	169,000	308	145	560,000
Spain	60	30	120,000	60	30	120,000
Taiwan	--	--	--	1	(3)	7,400
Turkey	9	4	19,200	9	4	19,200
United Kingdom	--	--	--	5	2	7,910
Total	260	129	457,000	983	479	1,640,000
Total ferrosilicon	711	420	1,150,000	2,650	1,610	3,960,000

See footnotes at end of table.

TABLE 2--Continued
 U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN MARCH 2009^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Canada	1	XX	\$49,300	3	XX	\$209,000
China	452	XX	29,800,000	1,270	XX	84,200,000
Denmark	8	XX	1,570,000	29	XX	5,400,000
Germany	367	XX	18,600,000	1,030	XX	54,600,000
Hong Kong	8	XX	589,000	25	XX	3,720,000
Japan	766	XX	81,600,000	2,570	XX	210,000,000
Korea, Republic of	113	XX	9,730,000	441	XX	35,500,000
Malaysia	2	XX	402,000	11	XX	1,930,000
Norway	495	XX	30,000,000	1,310	XX	80,300,000
Taiwan	96	XX	6,140,000	225	XX	14,400,000
Other (24 countries)	54	XX	3,250,000	130	XX	9,040,000
Total	2,360	2,360^c	182,000,000	7,050	7,050^c	499,000,000
99.00% - 99.99% silicon:						
Australia	--	--	--	9	9	13,100
Belgium	--	--	--	148	147	436,000
Brazil	16	16	47,500	16	16	47,500
Costa Rica	--	--	--	1	1	5,700
Dominican Republic	--	--	--	1	1	6,900
El Salvador	(3)	(3)	3,200	(3)	(3)	3,200
Germany	--	--	--	41	41	57,900
Ireland	5	5	6,900	5	5	6,900
Mexico	--	--	--	5	5	6,680
Peru	--	--	--	5	5	7,560
Poland	--	--	--	3	3	3,600
Singapore	3	3	4,880	18	18	48,800
Spain	--	--	--	6	6	9,000
Taiwan	2	2	2,560	10	10	14,100
Total	27	26	65,000	270	268	667,000
Other silicon:						
Belgium	--	--	--	1	1	8,170
Brazil	--	--	--	16	15	20,600
Canada	3	3	3,370	44	43	52,300
China	21	20	27,300	30	29	47,300
El Salvador	--	--	--	4	4	3,410
Germany	--	--	--	2	2	3,000
Israel	(3)	(3)	4,020	(3)	(3)	4,020
Japan	60	57	709,000	151	146	829,000
Mexico	(3)	(3)	3,690	(3)	(3)	3,690
Philippines	18	17	35,400	18	18	42,100
South Africa	--	--	--	32	31	41,700
Taiwan	31	30	58,000	78	76	168,000
United Kingdom	1	1	9,750	3	3	19,700
Total	135	130	851,000	380	367	1,240,000
Total silicon metal	2,520	2,520	183,000,000	7,700	7,690	501,000,000

^aEstimated. XX Not applicable. -- Zero.

¹Countries listed are the leading exporters in terms of year-to-date quantities (gross weight).

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

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN MARCH 2009^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, more than 3% Ca:						
Argentina	--	--	--	40	24	\$162,000
China	199	149	\$183,000	618	455	653,000
France	1	1	3,980	91	56	356,000
Total	200	150	187,000	749	535	1,170,000
55% - 80% silicon, other:						
Brazil	--	--	--	48	32	93,200
Canada	856	634	1,790,000	2,120	1,580	4,430,000
China	255	191	270,000	3,600	2,730	3,940,000
France	72	49	206,000	539	371	1,540,000
Germany	17	12	85,100	68	48	327,000
India	--	--	--	38	28	120,000
Russia	--	--	--	6,520	4,980	7,000,000
United Kingdom	--	--	--	16	11	109,000
Venezuela	--	--	--	4,100	3,080	5,310,000
Total	1,200	886	2,350,000	17,100	12,900	22,900,000
Magnesium ferrosilicon:						
Argentina	56	25	180,000	281	122	916,000
Brazil	312	150	615,000	1,010	483	1,740,000
Canada	592	271	1,240,000	1,410	642	2,900,000
China	40	18	63,700	91	40	151,000
France	18	8	27,400	18	8	27,400
Total	1,020	473	2,120,000	2,810	1,300	5,730,000
Other ferrosilicon:						
Brazil	38	17	22,000	38	17	22,000
Canada	204	85	291,000	963	373	1,240,000
France	--	--	--	18	9	39,600
Russia	152	71	138,000	152	71	138,000
Total	395	173	451,000	1,170	471	1,440,000
Total ferrosilicon	2,810	1,680	5,110,000	21,800	15,200	31,200,000

See footnotes at end of table.

TABLE 3--Continued
 U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN MARCH 2009^{1,2}

(Metric tons, unless otherwise specified)

	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Canada	30	XX	\$1,320,000	121	XX	\$5,170,000
China	5	XX	137,000	26	XX	484,000
Czech Republic	--	XX	--	1	XX	86,400
Denmark	(3)	XX	181,000	1	XX	735,000
Germany	128	XX	9,670,000	352	XX	26,300,000
Italy	12	XX	410,000	44	XX	1,970,000
Japan	26	XX	2,340,000	63	XX	4,950,000
Norway	2	XX	135,000	12	XX	627,000
Singapore	--	XX	--	(3)	XX	4,130
Taiwan	1	XX	20,900	3	XX	84,000
Other (4 countries)	35	XX	952,000	34	XX	960,000
Total	239	239^c	15,200,000	657	657^c	41,400,000
99.00% - 99.99% silicon:						
Australia	1,090	1,090	2,830,000	3,190	3,170	8,850,000
Brazil	3,970	3,940	10,900,000	8,190	7,930	21,600,000
Canada	507	503	1,040,000	1,820	1,800	3,840,000
Laos	810	806	1,920,000	1,710	1,700	4,530,000
Norway	852	846	2,790,000	2,530	2,520	8,370,000
Philippines	--	--	--	90	89	161,000
South Africa	1,250	1,240	3,450,000	2,880	2,860	8,700,000
Sweden	9	9	69,800	32	31	244,000
Ukraine	--	--	--	302	299	800,000
Total	8,490	8,430	23,000,000	20,700	20,400	57,100,000
Other silicon:						
Australia	194	192	550,000	194	192	550,000
Brazil	293	289	936,000	1,440	1,330	4,520,000
Canada	--	--	--	652	639	1,260,000
China	60	59	101,000	282	278	443,000
Japan	--	--	--	(3)	(3)	6,900
Norway	81	78	105,000	741	606	1,680,000
Philippines	--	--	--	72	70	129,000
Singapore	12	(3)	12,900	23	(3)	36,200
Ukraine	--	--	--	318	314	801,000
Other (2 countries)	--	--	--	(3)	(3)	6,630
Total	639	617	1,710,000	3,720	3,430	9,430,000
Total silicon metal	9,370	9,280	39,900,000	25,100	24,500	108,000,000

^cEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the leading countries.

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

³Less than ½ unit.

Source: U.S. Census Bureau.