

Mineral Industry Surveys

For information, contact:

M. Michael Miller, Fluorspar Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-7716, Fax: (703) 648-7757
E-mail: mmiller1@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>

FLUORSPAR IN THE FIRST QUARTER 2008

Reported fluorspar consumption in the first quarter was 142,000 metric tons (t), an increase of about 8% compared with that of the previous quarter and with the first quarter of 2007. Consumption of acid-grade fluorspar (acidspar) for hydrofluoric acid (HF) and aluminum fluoride (AlF₃) was 120,000 t, a 7% increase compared with the revised figure for the previous quarter and 5% higher than that in the first quarter of 2007. Consumption of metallurgical-grade fluorspar (metspar) was 9,660 t, an increase of about 12% compared with that of the previous quarter, and 25% more than was consumed in the first quarter of 2007.

In recent years, the import values [cost, insurance, and freight (c.i.f.)] for some acidspar imports have been underreported. As a result, average import values for acidspar are no longer listed in table 1. According to *Industrial Minerals* magazine, end-of-first-quarter-2008 acidspar prices were—China, dry basis, c.i.f. U.S. Gulf or Mexico port, \$340 to \$350 per metric ton; Mexico, free on board (f.o.b.) Tampico, \$180 to \$200 per metric ton and \$270 to \$280 per metric ton (low arsenic); and South Africa, f.o.b. Durban, \$215 per metric ton (*Industrial Minerals*, 2008b).

Industry News

Burin Fluorspar Ltd. (Canada) signed an agreement in principle with British Columbia-based Rivera Capital Corp. proposing to merge the two companies with the ultimate goal being to restart fluorspar mining near St. Lawrence, on the Burin Peninsula of Newfoundland, Canada. The net result of a merger would be the public listing of Burin Fluorspar on the Toronto Stock Exchange Venture Exchange. Before the merger takes place, shareholders for both companies must approve the transaction. Prior to signing the agreement, Burin Fluorspar raised more than \$6 million to fund a drilling program, prepare a bankable feasibility study, and complete other necessary work to determine whether the project is viable (Herridge, 2008). The area has a long mining history; the St. Lawrence fluorspar mines operated from 1933 to 1977

and from 1984 to 1990. Burin Fluorspar, which was issued mining leases in 1996 by the Provincial government, has performed exploratory drilling and prepared prefeasibility studies, but has heretofore been unsuccessful in raising sufficient financing to restart mine production.

Mexichem S.A.B. de C.V., which through its Mexichem Fluor division is Mexico's primary producer of fluorspar and HF, announced the acquisition of Mexican fluorspar producer Fluorita de Rio Verde S.A. de C.V. The acquisition included mining concessions Lilia II and La Esperanza and production plants in the municipalities of Rio Verde, State of San Luis Potosi, and Alamos de Martinez, State of Guanajuato. Mexichem planned to begin production in the second unit at the Alamos de Martinez plant, which would increase Fluorita de Rio Verde's fluorspar production from 40,000 metric tons per year (t/yr) to 80,000 t/yr. Longer term plans call for reactivating the Rio Verde fluorspar mine (Mexichem S.A.B. de C.V., 2008).

Kenya Fluorspar Co. Ltd. (Nairobi) reported that its export operations had returned to normal after countrywide disruptions in January and February that resulted from the disputed national election. Mine production was unaffected, but Kenya Fluorspar's road and rail logistics connecting the mine to the Port of Mombasa were disrupted (*Industrial Minerals*, 2008a).

References Cited

- Herridge, Paul, 2008, Hurdles to overcome, says Burin Fluorspar Ltd. president: *The Southern Gazette*, March 6, 1 p. (Accessed May 28, 2008, at <http://www.southerngazette.ca/index.cfm?sid=139923&sc=382>.)
- Industrial Minerals*, 2008a, Kenya Fluorspar back on track: *Industrial Minerals*, no. 487, April, p. 16.
- Industrial Minerals*, 2008b, Prices: *Industrial Minerals*, no. 487, April, p. 124.
- Mexichem S.A.B. de C.V., 2008, Mexichem S.A.B. de C.V. announces that it has acquired the shares and production plants of Fluorita de Rio Verde in Mexico: Mexichem S.A.B. de C.V. news release, April 7, 1 p. (Accessed April 15, 2008, at http://www.mexichem.com/web_mexichem/noti_pop_up1.php?id_comunicado=57.)

TABLE 1
SALIENT FLUORSPAR STATISTICS¹

(Metric tons, unless otherwise specified)

	2007					2008
	First quarter	Second quarter	Third quarter	Fourth quarter	Total or average	First quarter
Imports for consumption:	111,000	202,000	129,000	177,000	620,000	122,000
Average value per ton, c.i.f. U.S. port, acid grade ²	NA	NA	NA	NA	NA	NA
Average value per ton, c.i.f. U.S. port, metallurgical grade	\$110	\$112	\$110	\$110	\$111	\$103
Exports	3,750	3,190	3,010	3,600	13,600	4,070
End of quarter stocks, consumer	88,900	115,000	114,000	90,100	XX	102,000
Imports for consumption of hydrofluoric acid ³	41,500	41,000	35,000	34,300	152,000	35,000
Imports for consumption of cryolite ³	1,550	1,270	800	853	4,470	2,370
Quarterly reported fluorspar consumption	132,000	143,000	132,000 ^r	132,000	539,000 ^r	142,000

^rRevised. NA Not available. XX Not applicable.

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

²Value data appear to be underreported and are too low to make accurate average-value-per-ton calculations for acid-grade imports

³In the past, these data showed imports in fluorspar equivalents, but data are now actual imports for consumption of indicated materials

TABLE 2
CONSUMPTION OF FLUORSPAR BY END USE AND ASSAY RANGE¹
(DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

	Hydrofluoric acid and aluminum fluoride	Metallurgical	Other uses or products ²	Total	Stocks, end of period ³
2007:					
First quarter:					
More than 97% calcium fluoride	114,000	3,630	7,020	124,000	67,900
Not more than 97% calcium fluoride	--	3,920	3,810	7,740	20,900
Total	114,000	7,550	10,800	132,000	88,900
Second quarter:					
More than 97% calcium fluoride	124,000	3,710	7,120	135,000	94,600
Not more than 97% calcium fluoride	--	8,230	--	8,230	20,700
Total	124,000	11,900	7,120	143,000	115,000
Third quarter:					
More than 97% calcium fluoride	114,000 ^r	3,710	6,990	124,000 ^r	95,800
Not more than 97% calcium fluoride	--	7,890	--	7,890	18,300
Total	114,000 ^r	11,600	6,990	132,000 ^r	114,000
Fourth quarter:					
More than 97% calcium fluoride	112,000 ^r	3,710	7,230	123,000 ^r	78,200
Not more than 97% calcium fluoride	--	4,210	4,450	8,660	11,900
Total	112,000 ^r	7,920	11,700	132,000	90,100
Grand total	464,000 ^r	39,000	36,600	539,000 ^r	XX
2008:					
First quarter:					
More than 97% calcium fluoride	120,000	4,020	7,640	132,000	85,800
Not more than 97% calcium fluoride	--	9,660	--	9,660	16,100
Total	120,000	13,700	7,640	142,000	102,000

^rRevised. XX Not applicable. -- Zero.

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

²May include cement, enamel, glass and fiberglass, steel castings, and welding rod coatings.

³Stocks include distributor stocks (excluding National Defense Stockpile holdings) and consumer stocks for hydrofluoric acid and aluminum fluoride.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FLUORSPAR, BY COUNTRY AND VALUE^{1,2}

	2007										2008	
	First quarter		Second quarter		Third quarter		Fourth quarter		Year		First quarter	
	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)
Containing more than 97% calcium fluoride:												
China	46,200	\$9,450	130,000	\$23,800	11,900	\$2,630	88,600	\$20,600	277,000	\$56,500	14,700	\$3,540
Germany	--	--	--	--	--	--	--	--	--	--	133	17
Mexico	58,300	9,040	46,600	7,870	66,600	10,300	63,500	10,100	235,000	37,300	67,300	12,300
Mongolia	--	--	--	--	23,800	4,450	--	--	23,800	4,450	--	--
Russia	--	--	--	--	--	--	--	--	--	--	1	7
South Africa	--	--	10,900	1,830	19,900	3,320	10,600	2,840	41,400	7,990	15,000	2,540
United Kingdom	3	6	4	16	21	6	348	51	376	79	7	20
Total	105,000	18,500	187,000	33,500	122,000	20,700	163,000	33,600	577,000	106,000	97,100	18,400
Containing not more than 97% calcium fluoride:												
Mexico	6,860	751	14,400	1,620	6,560	722	14,300	1,580	42,100	4,670	24,500	2,530
Namibia	--	--	278	24	191	17	--	--	469	41	276	24
South Africa	18	5	19	3	--	--	--	--	37	8	--	--
Total	6,880	756	14,700	1,640	6,750	739	14,300	1,580	42,600	4,710	24,800	2,560
Grand total	111,000	19,300	202,000	35,200	129,000	21,400	177,000	35,100	620,000	111,000	122,000	21,000

-- Zero.

¹Imports for consumption include imports of immediate entry and warehouse withdrawals.

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

³Value data for imports "containing more than 97% calcium fluoride" are believed to be underreported; insufficient information is available to make accurate adjustments.

Source: U.S. Census Bureau.

TABLE 4
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID¹

	2007										2008	
	First quarter		Second quarter		Third quarter		Fourth quarter		Year		First quarter	
	Quantity (metric tons)	Value ² (thousands)	Quantity (metric tons)	Value ² (thousands)	Quantity (metric tons)	Value ² (thousands)	Quantity (metric tons)	Value ² (thousands)	Quantity (metric tons)	Value ² (thousands)	Quantity (metric tons)	Value ² (thousands)
Canada	9,610	\$13,900	9,770	\$14,100	6,880	\$12,200	5,230	\$9,390	31,500	\$49,500	5,130	\$10,000
China	435	398	540	430	708	680	441	457	2,120	1,970	442	595
Germany	93	214	79	189	92	232	163	371	427	1,010	162	346
Japan	319	696	212	481	298	618	255	543	1,080	2,340	391	933
Mexico	31,000	32,000	30,300	31,000	26,900	28,000	28,200	29,700	116,000	121,000	28,800	30,600
Other	77	63	53	48	123	144	35	82	288	337	16	52
Total	41,500	47,200	41,000	46,200	35,000	41,800	34,300	40,500	152,000	176,000	35,000	42,600

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

²Cost, insurance, and freight at U.S. ports.

Source: U.S. Census Bureau.