

Mineral Industry Surveys

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FLUORSPAR IN THE THIRD QUARTER 2003

Reported fluorspar consumption in the third quarter was 165,000 metric tons (t), a nearly 20% increase compared with the revised figure for the previous quarter and 12% higher compared with the third quarter of 2002. Consumption of fluorspar for hydrofluoric acid (HF) and aluminum fluoride was 142,000 t, an increase of 21% compared with the revised figure for the previous quarter and nearly 13% higher compared with the third quarter of 2002. Revisions have been made to fluorspar imports reported in table 3. Material classified as metallurgical grade from South Africa and Spain has been reclassified as acid grade, and the data have been moved to the appropriate section of the table.

On December 4, the President signed a proclamation ending the temporary steel tariffs put into place in March 2002. The decision was made based on significant improvements in the U.S. steel industry and other changed circumstances such as the stabilization of steel prices, a significant decrease in steel imports, and an increase in steel exports (Shawcross, 2003). With the improving economy and rising demand for steel, immediate impacts on domestic steel producers from this decision are expected to be minor. The impact on fluorspar sales to the steel industry is likely to also be minor.

Defense Stockpile

There were no sales of fluorspar during the third quarter of 2003. According to the November 2003 report from the Defense National Stockpile Center, unsold stockpile material consisted of 7,300 t of acid grade, 69,200 t of metallurgical grade, and 20,000 t of sub-specification metallurgical grade. Material committed for sale pending shipment totaled about 73,700 t of acid grade and 11,800 t of metallurgical grade.

Industry News

Mongolian Minerals, a fluorspar mining and milling joint venture between Mongolian mining company Ayrag Mining Corp. and U.S. trading company One-O-One Inc., that was

formed earlier in 2003, recently announced plans to build an aluminum fluoride (AlF₃) plant in order to create value-added export products. The company hopes to export metallurgical- and acid-grade fluorspar to customers in Asia, Europe, and North America (Industrial Minerals, 2003b). At present the company is only producing metallurgical-grade fluorspar, but it does sell acid-grade fluorspar sourced from Mongolrostsvetmet Corp., and it is working on setting up its own acid-grade fluorspar production to supply the AlF₃ plant (P. Crossley, Senior Assistant Editor, Industrial Minerals, written commun., December 9, 2003).

Atlas Minerals Inc. has opted not to renew or extend its option to purchase the La Barra fluorspar property in Sonora State, Mexico. Atlas took out a 6-month option to purchase the fluorspar property in June 2003 (Atlas Minerals, Inc., written commun., December 16, 2003).

Fluorochemical News

Japan's Itochu Corp. announced that it would triple the capacity of its Chinese joint-venture HF plant in Zhejiang province. Itochu owns 60% of the joint venture, and Yingpeng Chemical Co. Ltd. owns the remaining 40%. The plant started operation in early 2003 with a capacity of 10,000 metric tons per year (t/yr); the new plans call for a two-stage increase that will bring total plant capacity to 35,000 t/yr by 2005. All output from the plant is currently being exported (Industrial Minerals, 2003a).

References Cited

- Industrial Minerals, 2003a, Itochu triples Chinese HF capacity: Industrial Minerals, no. 432, September, p. 32.
Industrial Minerals, 2003b, Mongolian fluorspar j-v moves into AlF₃: Industrial Minerals, no. 432, November, p. 9.
Shawcross, Philip, 2003, Bush withdraws 201 programme: Metal Bulletin, no. 8819, December 8, p. 22.

TABLE 1
SALIENT FLUORSPAR STATISTICS¹

(Metric tons, unless otherwise specified)

	2002		2003			
	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Year to date
Imports for consumption:	108,000	155,000	182,000	90,400	151,000	424,000
Value per ton, c.i.f. U.S. port, acid grade	\$129	\$122	\$129 ^r	\$122 ^r	\$141	\$132 ²
Value per ton, c.i.f. U.S. port, metallurgical	\$89	\$101	\$85 ^r	\$85 ^r	\$85	\$85 ²
Exports	6,020	5,390	8,170	8,090	7,330	23,600
End of quarter stocks, consumer	99,400	122,000	142,000	123,000	125,000	125,000
Fluorspar equivalent of imported hydrofluoric acid	48,500	34,000	47,900	51,000	32,800	132,000
Fluorspar equivalent of imported cryolite	1,730	4,860	1,480	6,650	845	8,980
Quarterly reported fluorspar consumption	147,000	151,000	147,000	138,000 ^r	165,000	449,000

^rRevised.

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

²Average value.

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

(Metric tons)

End use or product	Second quarter 2003			Third quarter 2003			2003 Year to date
	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	
Hydrofluoric acid and aluminum fluoride	117,000 ^r	--	117,000 ^r	142,000	--	142,000	383,000
Metallurgical	4,990	8,210	13,200	5,480	10,400	15,900	43,200
Other uses or products ²	7,800	--	7,800	6,690	--	6,690	22,600
Total	130,000 ^r	8,210	138,000 ^r	154,000	10,400	165,000	449,000
Stocks, end of quarter ³	94,000	28,800	123,000	89,700	35,200	125,000	125,000

^rRevised. -- Zero.

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

²Includes acid grade used in enamel, glass and fiberglass, steel castings, and welding rod coatings.

³Stocks data 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}

	2002				2003							
	Third quarter		Fourth quarter		First quarter		Second quarter		Third quarter		Year to date	
	Quantity (metric tons)	Value ³ (thousands)										
Containing more than 97% calcium fluoride:												
China	66,000	\$8,630	128,000	\$15,600	115,000	\$15,100	14,700	\$2,010	111,000	\$16,200	241,000	\$33,200
France	60	25	39	13	--	--	40	13	--	--	40	13
Germany	--	--	--	--	--	--	17	11	--	--	17	11
Japan	--	--	2,910	344	--	--	--	--	--	--	--	--
Mexico	8,950	1,100	11,200	1,330	11,900	1,380	16,800	1,820	15,500	1,950	44,200	5,150
Mongolia	--	--	--	--	--	--	--	--	20	3	20	3
South Africa	24,500	3,090	11,900	1,470	24,800 ^r	3,020 ^r	52,700 ^r	6,410 ^r	15,000	1,870	92,400	11,300
Spain	--	--	--	--	19,100	2,540	--	--	--	--	19,100	2,540
United Kingdom	--	--	276	34	20	3	44	22	46	21	110	46
Total	99,500	12,800	154,000	18,800	171,000 ^r	22,000 ^r	84,300 ^r	10,300 ^r	142,000	20,000	397,000	52,300
Containing not more than 97% calcium fluoride:												
Austria	128	11	--	--	--	--	--	--	--	--	--	--
Canada	40	14	37	12	--	--	--	--	--	--	--	--
Mexico	8,470	745	596	52	11,300	955	6,150	525	9,010	762	26,500	2,240
Total	8,630	770	633	64	11,300 ^r	955 ^r	6,150 ^r	525 ^r	9,010	762	26,500	2,240
Grand total	108,000	13,600	155,000	18,900	182,000	23,000	90,400	10,800	151,000	20,800	424,000	54,500

^rRevised. -- 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.

³Cost, insurance, and freight at U.S. ports.

Source: U.S. Census Bureau, adjusted by the U.S. Geological Survey.

TABLE 4
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID¹

	2002				2003							
	Third quarter		Fourth quarter		First quarter		Second quarter		Third quarter		Year to date	
	Quantity (metric tons)	Value ² (thousands)										
Canada	8,800	\$10,700	5,830	\$6,940	8,580	\$10,000	11,000	\$12,500	6,990	\$8,060	26,500	\$30,500
Japan	394	1,030	283	724	389	978	184	442	311	755	884	2,180
Mexico	22,900	21,900	16,200	15,200	22,800	22,100	22,600	21,900	13,900	12,900	59,300	56,900
Other ³	244	321	392	559	202	307	261	368	656	167,000	1,120	167,000
Total	32,400	34,000	22,700	23,500	32,000	33,400	34,000	35,200	21,800	188,000	87,800	257,000

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

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

³Includes China, France, Germany, Italy, the Republic of Korea, the Netherlands, Switzerland, Taiwan, and the United Kingdom.

Source: U.S. Census Bureau.