

Mineral Industry Surveys

For information, contact:

Michele E. McRae, Fluorspar Commodity Specialist
 National Minerals Information Center
 U.S. Geological Survey
 989 National Center
 Reston, VA 20192
 Telephone: (703) 648-7743, Fax: (703) 648-7757
 Email: mmcrae@usgs.gov

Wanda G. Wooten (Data)
 Telephone: (703) 648-7967
 Fax: (703) 648-7792
 Email: wwooten@usgs.gov

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

FLUORSPAR IN THE FIRST QUARTER 2018

Fluorspar imports in the first quarter of 2018 were 120,000 metric tons (t), 97,900 t of which were acid grade and 21,700 t of which were metallurgical grade (fig. 1, table 1). Acid-grade imports increased by 71% as compared with the previous quarter and increased by 8% as compared with the first quarter of 2017. Metallurgical-grade imports increased by 26% as compared with the previous quarter and increased by 24% as compared with the first quarter of 2017. Mexico was the leading supplier of acid- and metallurgical grade fluorspar, accounting for 62% of imports (table 2).

Imports of other fluorine-containing materials produced directly from fluorspar were 32,200 t for hydrofluoric acid, 3,770 t for aluminum fluoride, and 2,510 t for cryolite (table 1). Mexico was the leading supplier of hydrofluoric acid, accounting for 93% of imports (table 3).

Exports of acid- and metallurgical-grade fluorspar,

aluminum fluoride and cryolite were likely re-exports as there is no domestic production (table 1).

The average import price of acid-grade fluorspar at ports in the Gulf Coast remained unchanged from 2017. Prices for acid- and metallurgical-grade fluorspar from Mexico were also unchanged. Acid-grade fluorspar prices from China, specifically free-on-board (f.o.b.) wet filtercake, increased by 22% from the previous quarter, and acid-grade filtercake imports from South Africa, f.o.b. Durban, increased by 74%.

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <http://minerals.usgs.gov/minerals/>.

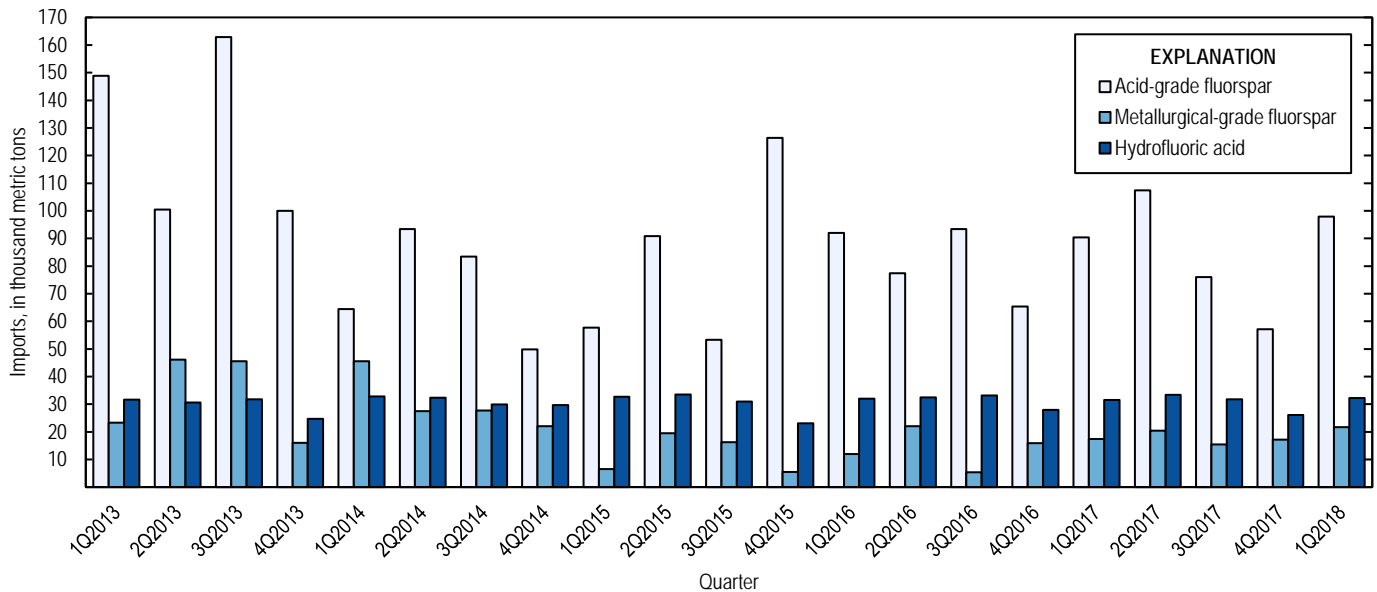


Figure 1. Acid-grade fluorspar, metallurgical-grade fluorspar, and hydrofluoric acid imports from the first quarter of 2013 through the first quarter of 2018. Source: U.S. Census Bureau.

TABLE 1
SALIENT FLUORSPAR STATISTICS¹

(Metric tons, unless otherwise specified)

	2017				2018	
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter
Production, fluorspar	--	--	--	--	--	--
Imports for consumption: ²						
Fluorspar:						
Acid grade, more than 97% calcium fluoride	90,400	107,000	76,000	57,100	331,000	97,900
Metallurgical grade, less than 97% calcium fluoride	17,400	20,400	15,400	17,200	70,400	21,700
Total	108,000	128,000	91,400	74,300	401,000	120,000
Hydrofluoric acid	31,500	33,400	31,800	26,100	123,000	32,200
Aluminum fluoride	6,350	4,230	5,470	4,550	20,600	3,770
Cryolite	2,670	2,420	2,790	2,020	9,900	2,510
Exports: ²						
Fluorspar:						
Acid grade, more than 97% calcium fluoride	819 ^r	1,220	2,090	1,050	5,180	891
Metallurgical grade, less than 97% calcium fluoride	941	1,480	1,800	1,530	5,760	1,810
Total	1,760 ^r	2,710	3,880	2,590	10,900	2,710
Hydrofluoric acid	4,010	3,350 ^r	2,230 ^r	5,320 ^r	14,900 ^r	4,270
Aluminum fluoride	82	55	69	125	331	102
Cryolite	2,850	2,990	3,430	4,600	13,900	3,190
Apparent consumption, fluorspar: ³						
Acid grade, more than 97% calcium fluoride	89,600	106,000	73,900	56,100	326,000	97,000
Metallurgical grade, less than 97% calcium fluoride	16,500	18,900	13,600	15,600	64,700	19,900
Total	106,000	125,000	87,600	71,700	390,000	117,000

^rRevised. -- Zero.

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

²Source: U.S. Census Bureau.

³Imports minus exports.

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

	2017										2018	
	1st quarter		2d quarter		3d quarter		4th quarter		1st quarter-4th quarter		1st quarter	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Acid grade, more than 97% calcium fluoride:												
China	22,300 ^r	\$6,230 ^r	38	\$22	266	\$148	246	\$133	22,900 ^r	\$6,530 ^r	114	\$78
Germany	137	73	114	51	229	109	144	35	624	268	480	77
Israel	--	--	--	--	--	--	34	21	34	21	--	--
Japan	--	--	1	3	--	--	1	7	2	10	--	--
Mexico	31,300	8,450	48,800	12,900	65,400	17,100	56,500	14,800	202,000	53,300	53,400	13,700
Mongolia	76	39	38	20	38	22	--	--	152	80	--	--
South Africa	--	--	27,900	5,990	--	--	--	--	27,900	5,990	15,000	4,940
Spain	10,100	2,240	--	--	10,000	2,420	21	12	20,100	4,670	10,000	3,330
United Kingdom	2	5	--	--	2	6	179	121	183	132	2	7
Vietnam	26,500 ^r	7,640 ^r	30,500	9,740	--	--	--	--	57,000 ^r	17,400 ^r	18,900	5,180
Total	90,400	24,700	107,000	28,700	76,000	19,800	57,100	15,200	331,000	88,400	97,900	27,300
Metallurgical grade, less than 97% calcium fluoride:												
China	191	122	271	161	86	51	53	19	601	353	26	18
Mexico	17,300	3,970	20,100	4,670	15,400	3,660	17,100	4,020	69,800	16,300	21,300	5,230
Mongolia	--	--	--	--	--	--	--	--	--	--	280	212
Netherlands	--	--	--	--	1	8	--	--	1	8	--	--
South Africa	--	--	--	--	--	--	--	--	--	--	27	11
Spain	--	--	--	--	--	--	--	--	--	--	52	39
Total	17,400	4,090	20,400	4,830	15,400	3,720	17,200	4,040	70,400	16,700	21,700	5,510
Grand total	108,000	28,800	128,000	33,500	91,400	23,500	74,300	19,200	401,000	105,000	120,000	32,800

^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.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID^{1,2}

	2017										2018	
	1st quarter		2d quarter		3d quarter		4th quarter		1st quarter–4th quarter		1st quarter	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Canada	181 ^r	\$223 ^r	316	\$551	114	\$216	133	\$210	744 ^r	\$1,200	102	\$230
China	1,650	1,450	1,740	1,810	987	1,150	942	1,040	5,320	5,450	689	867
Germany	386	737	418	810	322	595	234	478	1,360	2,620	390	738
India	19	15	34	33	34	39	--	--	88	87	--	--
Japan	955	1,170	993	1,240	1,240	1,520	712	1,100	3,900	5,030	282	483
Korea, Republic of	89	279	56	201	149	531	33	121	327	1,130	109	194
Mexico	27,900	40,100	29,600	42,200	28,500	41,500	23,600	35,000	110,000	159,000	30,000	43,800
Singapore	80	220	80	226	64	186	48	142	274	774	97	284
Spain	56	137	95	188	252	367	293	370	695	1,060	457	610
Taiwan	126	264	68	208	70	206	96	266	360	943	87	251
United Kingdom	--	--	--	--	--	--	--	--	--	--	(3)	2
Total	31,500	44,600	33,400	47,400	31,800	46,400	26,100	38,700	123,000	177,000	32,200	47,500

^rRevised. -- Zero.

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.

TABLE 4
END OF QUARTER FLUORSPAR PRICES

(Dollars per metric ton)

	2017				2018
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter
Acid grade, more than 97% calcium fluoride:					
Dry basis, cost, insurance, and freight, Gulf port, filtercake	260-270	260-270	260-270	260-270	260-270
Chinese, free on board (f.o.b.) China, wet filtercake	310-330	380-400	340-360	400-420	480-520
Mexican, f.o.b. Tampico, filtercake	260-280	260-280	260-280	260-280	260-280
Mexican, f.o.b. Tampico, arsenic <5 parts per million	280-310	280-310	280-310	280-310	280-310
South African, f.o.b. Durban, filtercake	200-220	200-230	200-230	200-230	350-400
Metallurgical grade, less than 97% calcium fluoride, Mexican, f.o.b. Tampico	230-250	230-250	230-250	230-250	230-250

Source: Industrial Minerals magazine (London).