

Diatomite

By A. C. Meisinger¹

U.S. production of processed diatomite in 1977 increased 3% in quantity and 16% in value compared with that of 1976. Filtration, with 59% of domestic demand, continued to be the major use for diatomite

during the year. Exports of processed diatomite, as in 1976, increased and again represented 24% of domestic production. Imports, however, declined substantially from the record year of 1976.

DOMESTIC PRODUCTION

Production of domestic processed diatomite in 1977 was 648,043 tons valued at \$64 million. Compared with that in 1976, production increased 3% in quantity and 16% in value.

U.S. output came from four Western States: California, Nevada, Oregon, and Washington, of which, California diatomite operations accounted for 61% of the national total. The Kansas operation of NL Industries, Inc., was shutdown in 1977, but 15 mine and plant facilities were in operation by the following producers: Johns-Manville Sales Corp. at Lompoc, Calif.; Grefco, Inc. (Dicalite Div.), at Lompoc, Calif., and Mina, Nev.; Excel-Minerals Co.,

Taft, Calif.; Airox Earth Resources, Inc., Santa Maria, Calif.; Eagle-Picher Industries, Inc., Sparks and Lovelock, Nev.; Cyprus Mines Corp., Fernley, Nev.; American Fossil, Inc., Christmas Valley, Oreg.; and Inorganic Specialties Div. Witco Chemical Corp., Quincy, Wash.

Witco Chemical Corp. held dedication ceremonies (October 18, 1977) for its new diatomite-processing plant at Quincy, Wash.² The company, through its Inorganic Specialties Division, mines diatomaceous earth in Grant County, about 19 miles from the new plant site. The highly automated plant will enable Witco to substantially increase its production of Kenite diatomite products, particularly filter aids.

Table 1.—Diatomite sold or used by producers in the United States

	1973	1974	1975	1976	1977
Domestic production (sales)----- short tons--	608,906	664,303	572,582	631,380	648,043
Average value per ton -----	\$59.26	\$76.31	\$80.01	\$87.08	\$98.56

CONSUMPTION AND USES

Consumption of diatomite increased 3% compared with that of 1976. With the exception of diatomite used for pozzolans, lightweight aggregates, and fertilizer coatings, all end uses increased in 1977, with filtration accounting for 59% of domestic demand. Other major uses were fillers and

insulation. Other end uses for diatomite (table 2) included abrasives, absorbents, additives, admixtures, carriers, and coating agents for numerous applications, primarily in the agricultural, chemical, and construction industries.

Table 2.—Domestic consumption of diatomite, by principal use
(Percent of total consumption)

Use	1973	1974	1975	1976	1977
Filtration -----	61	60	60	60	59
Fillers -----	W	W	W	W	W
Insulation -----	4	5	4	5	5
Other -----	35	35	36	35	36

W Withheld to avoid disclosing individual company confidential data; included with "Other."

PRICES

The weighted average price per ton of processed diatomite sold by producers was \$98.56, an increase of 13% compared with the 1976 price of \$87.08. The continued high cost of fuels used in the processing plants was a major factor for the increase.

Price increases were substantial for diatomite in all major end-use categories, as shown in table 3. Insulation use, which did not increase in price in 1976, increased the least in 1977.

Table 3.—Average annual value per ton of diatomite, by use

Use	1976	1977
Filtration -----	\$99.34	\$109.79
Insulation -----	62.56	70.08
Abrasives -----	146.04	156.07
Fillers -----	92.44	106.62
Lightweight aggregate -----	55.87	66.37
Miscellaneous -----	48.10	62.12
Weighted average -----	87.08	98.56

FOREIGN TRADE

The quantity and value of U.S. exports of processed diatomite increased 2% and 11% respectively compared with those of 1976. The quantity exported (152,388 tons) represented 24% of domestic production in 1977, as in 1976. Principal destinations were Canada (34,533 tons); Japan (17,918 tons); West Germany (15,019 tons); the United Kingdom (13,645 tons); and Australia (10,994 tons).

The average value of exports was \$124.18 per ton compared with \$113.64 per ton in 1976. Diatomite imports totaled only 651 tons, compared with the record quantity of 5,154 tons imported in 1976. Canada (336 tons), Mexico (314 tons), and West Germany (1 ton), were the import sources in 1977.

¹Industry economist, Division of Nonmetallic Minerals.
²Pit and Quarry, Witco Chemical Dedicates Diatomite Plant in Quincy, Wash. V. 70, March 1978, pp. 88-89.

Table 4.—U.S. exports of diatomite
(Thousand short tons and thousand dollars)

Year	Quantity	Value
1975 -----	147	15,314
1976 -----	149	16,932
1977 -----	152	18,876

Table 5.—Diatomite: World production, by country

(Short tons)

Country	1975	1976	1977 ^p
North America:			
Canada ^o -----	550	560	550
Costa Rica -----	^o 1,100	790	750
Mexico -----	25,048	28,984	31,000
United States -----	^r 572,582	631,880	648,043
South America:			
Argentina -----	16,535	15,267	17,324
Brazil (marketable) -----	^r 3,088	5,989	^o 5,100
Chile -----	205	364	^o 365
Colombia -----	^r 33,069	^r ^o 33,100	^o 30,100
Peru -----	14,000	19,008	^o 20,000
Europe:			
Austria -----	1,731	2,075	267
Denmark:			
Diatomite ^o -----	23,000	23,000	28,000
Moler ^o -----	250,000	250,000	250,000
France ^o -----	^r 210,000	^r 220,000	230,000
Germany, Federal Republic of (marketable) -----	60,219	58,865	^o 60,000
Iceland ¹ -----	^o 24,800	25,021	^o 25,300
Italy ^o -----	35,000	35,000	38,000
Portugal -----	2,304	2,859	3,737
Romania ^o -----	40,000	45,000	45,000
Spain -----	^r 22,454	^o 22,000	^o 22,000
Sweden -----	466	360	^o 330
U.S.S.R. ^o -----	450,000	460,000	470,000
United Kingdom -----	3,858	3,900	3,900
Africa:			
Algeria -----	11,000	16,500	^o 16,500
Egypt -----	^r 1,764	360	270
Kenya -----	1,983	2,941	2,691
South Africa, Republic of -----	715	682	734
Asia: Korea, Republic of -----	21,258	14,862	^o 25,331
Oceania:			
Australia -----	6,110	911	^o 770
New Zealand -----	3,368	(^o)	--
Total -----	^r 1,836,207	1,918,763	1,976,062

^oEstimate. ^pPreliminary. ^rRevised.¹Exports.^oRevised to none.

