

DIATOMITE

(Data in thousand metric tons, unless otherwise noted)

Domestic Production and Use: The estimated value of processed diatomite, f.o.b. plant, was \$179 million in 2002. Production was from 7 companies with 12 processing facilities in 4 States. California and Nevada were the principal producing States, and accounted for about 79% of U.S. production in 2002. Estimated end uses of diatomite were filter aids, 63%; absorbents, 13%; fillers, 11%; and other (mostly cement manufacture), 13%.

Salient Statistics—United States:	1998	1999	2000	2001	2002^e
Production ¹	725	747	677	644	700
Imports for consumption	2	2	(2)	(2)	(2)
Exports	138	123	131	148	148
Consumption, apparent	588	625	546	546	554
Price, average value, dollars per ton, f.o.b. plant	248	238	256	270	256
Stocks, producer, yearend	36	36	36	36	36
Employment, mine and plant, number ^e	1,000	1,000	1,000	1,000	1,000
Net import reliance ³ as a percentage of apparent consumption	E	E	E	E	E

Recycling: None.

Import Sources (1998-2001): Spain, 57%; Italy, 23%; and other, 20%.

Tariff: Item	Number	Normal Trade Relations 12/31/02
Siliceous fossil meals, including diatomite	2512.00.0000	Free.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Filtration (including purification of beer, wine, liquors, oils, and greases) continued to be the largest end use for diatomite, also known as diatomaceous earth (D.E.). Another application is the removal of microbial contaminants, such as bacteria, viruses, and protozoa, in public water systems. D.E. filter aids have been successfully deployed in about 200 locations throughout the United States for the treatment of potable water. Emerging small-scale applications for diatomite include pharmaceutical processing and use as a nontoxic insecticide.

World Mine Production, Reserves, and Reserve Base: Reserves and reserve base estimates have been increased significantly based on new information from the mining directorate in China.

	Mine production		Reserves ⁴	Reserve base ⁴
	2001	2002 ^e		
United States ¹	644	700	250,000	500,000
China	350	350	110,000	410,000
Denmark ⁵	28	28	NA	NA
France	75	75	—	2,000
Japan	180	190	NA	NA
Korea, Republic of	32	32	NA	NA
Mexico	70	70	—	2,000
Spain	36	36	NA	NA
Former Soviet Union ⁶	80	80	NA	NA
Other countries	200	200	550,000	NA
World total (may be rounded)	1,700	1,800	910,000	Large

World Resources: World resources of crude diatomite are adequate for the foreseeable future, but the need for diatomite to be near markets encourages development of new sources for the material.

Substitutes: Many materials can be substituted for diatomite. However, the unique properties of diatomite assure its continuing use for many applications. Expanded perlite and silica sand compete for filtration purposes. Other filtration technologies use ceramic, polymeric, or carbon membrane. Alternate filler materials include talc, ground silica sand, ground mica, clay, perlite, vermiculite, and ground limestone. For thermal insulation, materials such as various clays and special brick, mineral wool, expanded perlite, and exfoliated vermiculite can be used.

^eEstimated. E Net exporter. NA Not available. — Zero.

¹Processed ore sold and used by producers.

²Less than ½ unit.

³Defined as imports - exports + adjustments for Government and industry stock changes.

⁴See Appendix C for definitions.

⁵Includes sales of molar production.

⁶As constituted before December 1991.