

DIATOMITE

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: The estimated value of processed diatomite, f.o.b. plant, was \$164 million in 2004. Production was from 7 companies with 12 processing facilities in four States. Nevada and California were the principal producing States and accounted for about 78% of U.S. production in 2004. Estimated end uses of diatomite were filter aids, 68%; absorbents, 14%; fillers, 12%; and other (mostly cement manufacture), 6%.

<u>Salient Statistics—United States:</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004^e</u>
Production ¹	677	644	624	620	635
Imports for consumption	(2)	(2)	(2)	1	1
Exports	131	148	128	136	136
Consumption, apparent	546	546	497	485	500
Price, average value, dollars per ton, f.o.b. plant	256	270	255	258	258
Stocks, producer, yearend ^e	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 (2000-03): France, 61%; Italy, 21%; Mexico, 8%; and other, 10%.

<u>Tariff: Item</u>	<u>Number</u>	<u>Normal Trade Relations</u>
Siliceous fossil meals, including diatomite	2512.00.0000	<u>12-31-04</u> Free.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: The amount of domestically produced diatomite sold or used in 2004 increased 2% compared with that of 2003. Filtration (including the purification of beer, liquors, wine and the cleansing of greases and oils) continued to be the leading end use for diatomite, also known as diatomaceous earth (D.E.). Other applications include the removal of microbial contaminants, such as bacteria, protozoa, and viruses, in public water systems, and the filtration of human blood plasma. D.E. filter aids have been successfully deployed in about 200 locations throughout the United States for the treatment of potable water. Emerging applications for diatomite include pharmaceutical processing and use as an insecticide that is nontoxic to humans.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves ⁴	Reserve base ⁴
	2003	2004 ^e		
United States ¹	620	635	250,000	500,000
Argentina	25	25	NA	NA
China	380	370	110,000	410,000
Commonwealth of Independent States	80	80	NA	13,000
Czech Republic	30	35	4,500	4,800
Denmark ⁵ (processed)	232	232	NA	NA
France	75	75	NA	2,000
Japan	180	180	NA	NA
Korea, Republic of	21	21	NA	NA
Mexico	60	65	NA	2,000
Peru	35	35	2,000	5,000
Spain	35	36	NA	NA
Other countries	175	175	550,000	NA
World total (rounded)	1,950	1,960	920,000	Large

World Resources: World resources of crude diatomite are adequate for the foreseeable future, but the need for diatomite to be near markets because of transportation costs 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 in many applications. Expanded perlite and silica sand compete for filtration. Synthetic filters, notably ceramic, polymeric, or carbon membrane filters and filters made with cellulose fibers, are also becoming competitive as filter media. Alternate filler materials include talc, ground silica sand, ground mica, clay, perlite, vermiculite, and ground limestone. For thermal insulation, materials such as various clays, special brick, mineral wool, expanded perlite, and exfoliated vermiculite can be used.

^eEstimated E Net exporter. NA Not available.

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 moler production.