

DIATOMITE

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2005, domestic production of diatomite was estimated at 635,000 tons with an estimated processed value of \$168 million, f.o.b. plant. Production was from 7 companies with 12 processing facilities in 4 States. Nevada and California were the principal producing States and accounted for about 78% of U.S. production in 2005. Estimated end uses of diatomite were filter aids, 68%; absorbents, 13%; fillers, 13%; and other (mostly cement manufacture and thermal insulation), 6%.

Salient Statistics—United States:	2001	2002	2003	2004	2005^e
Production ¹	644	624	599	620	635
Imports for consumption	(²)	(²)	(²)	1	1
Exports	148	128	136	143	144
Consumption, apparent	496	496	463	478	492
Price, average value, dollars per ton, f.o.b. plant	256	270	255	258	264
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 (2001-04): France, 60%; Italy, 20%; Spain, 11%; Mexico, 7%; and other, 2%.

Tariff: Item	Number	Normal Trade Relations 12-31-05
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: The amount of domestically produced diatomite sold or used in 2005 increased slightly compared with that of 2004. Filtration (including the purification of beer, liquors, and wine and the cleansing of greases and oils) continued to be the largest 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
	2004	2005 ^e		
United States ¹	620	635	250,000	500,000
China	390	400	110,000	410,000
Commonwealth of Independent States	80	80	NA	13,000
Czech Republic	30	35	4,500	4,800
Denmark ⁵ (processed)	233	234	NA	NA
France	75	75	NA	2,000
Japan	130	130	NA	NA
Mexico	70	60	NA	2,000
Peru	35	35	2,000	5,000
Romania	30	30	NA	NA
Spain	35	36	NA	NA
Other countries	<u>202</u>	<u>200</u>	<u>550,000</u>	<u>NA</u>
World total (rounded)	1,930	1,950	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.

⁴[See Appendix C for definitions.](#)

⁵Includes sales of molar production.