

TALC AND PYROPHYLLITE¹

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: Three companies operated five talc-producing mines in three States during 2019, and domestic production of crude talc was estimated to have decreased by 3% to 630,000 tons valued at almost \$24 million. Montana was the leading producer State, followed by Texas and Vermont. Total sales (domestic and export) of talc by U.S. producers were estimated to be 570,000 tons valued at \$120 million, a slight increase from those in 2018. Talc produced and sold in the United States was used in paint (23%), ceramics (including automotive catalytic converters) (20%), paper (15%), plastics (12%), rubber (4%), roofing (3%), and cosmetics (2%). The remaining 21% was for export, insecticides, refractories, and other miscellaneous uses.

One company in North Carolina mined and processed pyrophyllite in 2019. Domestic production was withheld in order to avoid disclosing company proprietary data and was estimated to have decreased from that in 2018. Pyrophyllite was sold for refractory, paint, and ceramic products.

<u>Salient Statistics—United States:</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019^e</u>
Production, mine	615	578	610	^e 650	630
Sold by producers	535	528	528	^e 550	570
Imports for consumption	322	378	354	313	310
Exports	206	239	220	273	240
Consumption, apparent ²	651	668	662	^e 590	640
Price, average, milled, dollars per metric ton ³	186	197	214	226	230
Employment, mine and mill, talc ⁴	239	223	206	208	206
Employment, mine and mill, pyrophyllite ⁴	29	30	31	30	31
Net import reliance ⁵ as a percentage of apparent consumption	22	27	20	7	11

Recycling: Insignificant.

Import Sources (2015–18): Pakistan, 41%; Canada, 27%; China, 21%; and other, 11%. Large quantities of crude talc are thought to have been mined in Afghanistan before being milled in and exported from Pakistan.

<u>Tariff: Item</u>	<u>Number</u>	<u>Normal Trade Relations</u> <u>12–31–19</u>
Natural steatite and talc:		
Not crushed, not powdered	2526.10.0000	Free.
Crushed or powdered	2526.20.0000	Free.
Talc, steatite, and soapstone; cut or sawed	6815.99.2000	Free.

Depletion Allowance: Block steatite talc: 22% (Domestic), 14% (Foreign). Other talc and pyrophyllite: 14% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Canada, China, and Pakistan were the principal sources for United States talc imports in recent years. Imports from Pakistan increased significantly in recent years and imports from China dropped to about one-third of previous levels. In 2019, imports from China stayed near 2018 levels and imports from Pakistan increased by about 16% compared to those of the previous year. Canada and Mexico continued to be the primary destinations for United States talc exports, collectively receiving about one-half of exports. U.S. talc production decreased in 2019 from that of 2018 but was still the second-highest level of production during the past 5 years. Apparent consumption was relatively flat for 4 consecutive years through 2017 but decreased in 2018 before increasing in 2019.

Ceramic tile and sanitaryware formulations and the technology for firing ceramic tile changed over recent decades, reducing the amount of talc required for the manufacture of some ceramic products. For paint, the industry shifted its focus to production of water-based paint (a product for which talc is not well suited because it is hydrophobic) from oil-based paint, in order to reduce volatile emissions. Paper manufacturing began to decrease beginning in the 1990s, and some talc used for pitch control was replaced by chemical agents. For cosmetics, manufacturers of body dusting powders shifted some of their production from talc-based to corn-starch-based products. The paper industry has traditionally been the largest consumer of talc worldwide; however, plastics are expected to overtake paper as the predominant end use within the next several years, as papermakers in Asia make greater use of talc substitutes and as the use of talc in automobile plastics increases.

World Mine Production and Reserves: Reserves for Brazil, India, and the Republic of Korea were revised based on Government and industry sources.

	Mine production ^e		Reserves ⁶
	2018	2019	
United States (crude)	650	630	140,000
Brazil (crude and beneficiated) ⁷	660	650	45,000
Canada (unspecified minerals)	210	210	NA
China (unspecified minerals)	1,800	1,800	82,000
Finland	380	370	Large
France (crude)	450	450	Large
India ⁷	920	950	130,000
Italy (includes steatite)	170	170	NA
Japan ⁷	160	160	100,000
Korea, Republic of ⁷	350	350	100,000
Other countries (includes crude) ⁷	815	820	Large
World total (rounded) ⁷	6,600	6,600	Large

World Resources: The United States is self-sufficient in most grades of talc and related minerals, but lower priced imports have replaced domestic minerals for some uses. Talc occurs in the United States from New England to Alabama in the Appalachian Mountains and the Piedmont region, as well as in California, Montana, Nevada, Texas, and Washington. Domestic and world identified resources are estimated to be approximately five times the quantity of reserves.

Substitutes: Substitutes for talc include bentonite, chlorite, feldspar, kaolin, and pyrophyllite in ceramics; chlorite, kaolin, and mica in paint; calcium carbonate and kaolin in paper; bentonite, kaolin, mica, and wollastonite in plastics; and kaolin and mica in rubber.

^eEstimated. NA Not available.

¹All statistics exclude pyrophyllite unless otherwise noted.

²Defined as sold by producers + imports – exports.

³Average ex-works unit value of milled talc sold by U.S. producers, based on data reported by companies.

⁴Includes only companies that mine talc or pyrophyllite. Excludes office workers and mills that process imported or domestically purchased material.

⁵Defined as imports – exports.

⁶See Appendix C for resource and reserve definitions and information concerning data sources.

⁷Includes pyrophyllite.