

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 2022, and domestic production of crude talc was estimated to be nearly unchanged at 580,000 tons valued at \$26 million. Talc was mined in Montana, Texas, and Vermont. Total sales (domestic and export) of talc by U.S. producers were estimated to be 560,000 tons valued at about \$180 million. Talc produced and sold in the United States was used in paper, 23%; ceramics (including automotive catalytic converters), 18%; plastics, 18%; paint, 16%; rubber, 4%; and roofing, 2%. The remaining 19% was for agriculture, cosmetics, export, insecticides, and other miscellaneous uses.

One company in North Carolina mined and processed pyrophyllite in 2021. Domestic production data were withheld to avoid disclosing company proprietary data and were estimated to have increased from those in 2021. Pyrophyllite was sold for refractory, paint, and ceramic products.

<u>Salient Statistics—United States:</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022^e</u>
Production, mine	648	578	491	577	580
Sold by producers	537	515	461	556	560
Imports for consumption	313	280	189	278	330
Exports	260	229	186	232	200
Consumption, apparent ²	590	566	464	602	690
Price, average, milled, dollars per metric ton ³	227	240	265	321	320
Employment, mine and mill, number: ⁴					
Talc	208	202	187	154	150
Pyrophyllite	30	31	31	32	30
Net import reliance ⁵ as a percentage of apparent consumption	9	9	1	8	19

Recycling: Insignificant.

Import Sources (2018–21): Pakistan, 44%; Canada, 28%; China,⁶ 15%; and other, 13%. Large quantities of crude talc were thought to have been mined in Afghanistan before being milled in and exported from Pakistan.

<u>Tariff:</u>	<u>Item</u>	<u>Number</u>	<u>Normal Trade Relations</u> <u>12–31–22</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.

Events, Trends, and Issues: Canada, China, and Pakistan were the principal sources for United States talc imports in recent years. Imports from Pakistan have increased in recent years and accounted for nearly one-half of total imports. Imports from Canada have supplied nearly one-third of the total, whereas imports from China have increased recently to about 15% of total imports. Belgium and Malaysia were the primary destinations for United States talc exports, collectively receiving about one-half of exports. Imports of talc and related materials were estimated to have increased by about 19% in 2022 compared with those in 2021, whereas exports were estimated to have decreased by at least 10%. U.S. talc consumption, imports, production, and sales increased in 2022, with estimated mine production returning to 2019 levels. Apparent consumption of talc increased as trade continued to rebound in 2022 following a decrease caused by the global coronavirus disease 2019 (COVID-19) pandemic.

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The amount of talc used in paper and plastic production increased in 2021 and 2022. 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. The amount of talc used for 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 much of their production from talc-based to corn-starch-based products.

World Mine Production and Reserves: Reserves for China were revised based on Government reports.

	Mine production ⁶		Reserves ⁷
	<u>2021</u>	<u>2022</u>	
United States (crude)	⁸ 577	⁸ 580	140,000
Afghanistan	628	600	Large
Brazil (crude and beneficiated) ⁹	660	660	45,000
Canada (unspecified minerals)	150	150	NA
China (unspecified minerals)	1,100	1,100	56,000
Finland	¹⁰ 297	300	Large
France (crude)	350	350	Large
India ⁹	1,750	1,750	110,000
Italy (includes steatite)	165	165	NA
Japan ⁹	160	160	100,000
Korea, Republic of ⁹	¹⁰ 355	300	81,000
Pakistan	140	230	NA
Turkey ⁹	¹⁰ 220	220	NA
Other countries (includes crude) ⁹	<u>690</u>	<u>690</u>	<u>Large</u>
World total (rounded)	<u>⁸7,240</u>	<u>⁸7,300</u>	Large

World Resources:⁷ 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.

⁶Estimated. 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.

⁶Includes Hong Kong.

⁷See Appendix C for resource and reserve definitions and information concerning data sources.

⁸Excludes U.S. production of pyrophyllite.

⁹Includes pyrophyllite.

¹⁰Reported.