## TALC AND PYROPHYLLITE<sup>1</sup>

(Data in thousand metric tons unless otherwise specified)

<u>Domestic Production and Use</u>: Three companies operated five talc-producing mines in three States during 2023, and domestic production of crude talc was estimated to have decreased to 450,000 tons valued at \$22 million. Talc was mined in Montana, Texas, and Vermont. Total sales (domestic and export) of talc by U.S. producers were estimated to be 460,000 tons valued at about \$140 million. Talc produced and sold in the United States was used in plastics, 30%; ceramics (including automotive catalytic converters), 27%; paint, 17%; paper, 9%; roofing, 8%; and rubber, 5%. The remaining 4% was for agriculture, cosmetics, export, insecticides, and other miscellaneous uses.

Two companies in North Carolina mined and processed pyrophyllite in 2023. Domestic production data were withheld to avoid disclosing company proprietary data and were estimated to have decreased from those in 2022. Pyrophyllite was sold for ceramic, paint, and refractory products.

Salient Statistics—United States:	<u> 2019</u>	<u> 2020</u>	<u> 2021</u>	<u> 2022</u>	2023 <sup>e</sup>
Production, mine	578	491	577	511	450
Sold by producers	515	461	556	548	460
Imports for consumption	280	189	278	346	230
Exports	229	186	232	196	200
Consumption, apparent <sup>2</sup>	566	464	602	698	490
Price, average, milled, dollars per metric ton <sup>3</sup>	240	265	321	303	300
Employment, mine and mill, number:4					
Talc	208	187	334	316	350
Pyrophyllite	30	31	32	35	38
Net import reliance⁵ as a percentage of apparent consumption	9	1	8	21	6

**Recycling:** Insignificant.

<u>Import Sources (2019–22)</u>: Pakistan, 52%; Canada, 25%; China,<sup>6</sup> 13%; and other, 10%. Large quantities of crude talc were thought to have been mined in Afghanistan before being milled in and exported from Pakistan.

Tariff: Item	Number	Normal Trade Relations 12–31–23
Natural steatite and talc:	2526.10.0000	————
Not crushed, not powdered		Free.
Crushed or powdered	2526.20.0000	Free.
Talc, steatite, and soapstone; cut or sawed	6815.99.2000	Free.

<u>Depletion Allowance</u>: 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 of United States talc imports in recent years. Imports of talc and related materials were estimated to have decreased by about 33% in 2023 compared with those in 2022. Imports from Pakistan decreased by more than 50% in 2023 and accounted for about 33% of total imports. Imports from Canada were about the same as those in 2022 and supplied 24% of the total. Imports from China doubled and accounted for approximately 23% of total imports. Mexico, Canada, and Belgium, in descending order of quantity, were the primary destinations for United States talc exports, collectively receiving about 70% of exports. Exports were estimated to have remained essentially the same as those in 2022. U.S. talc consumption, imports, production, and sales were estimated to have decreased in 2023.

A talc mining company headquartered in New York announced in June that its subsidiary planned to end talc mining in the next few years. The subsidiary had talc mining and processing facilities in Montana and Texas. In October, it announced that its subsidiary filed for Chapter 11 bankruptcy. These decisions were made in part owing to the talc industry's multiple legal disputes and concerns about the safety of talc used to manufacture certain products, such as baby powder and cosmetics.

## TALC AND PYROPHYLLITE

In August 2022, a consumer products company headquartered in New Jersey announced plans to discontinue sales of talc-based baby powder globally in 2023, 3 years after it ended sales of the product in North America. The company is following an industry trend to substitute cornstarch for talc in baby powder and cosmetics.

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.

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

	Mine productione		Reserves <sup>7</sup>
	2022	<u>2023</u>	
United States (crude)	<sup>8</sup> 511	450	140,000
Afghanistan	370	370	Large
Brazil (crude and beneficiated) <sup>9</sup>	600	600	45,000
Canada (unspecified minerals)9	200	200	NA
China (unspecified minerals)	1,100	1,100	72,000
Finland	<sup>8</sup> 242	240	Large
France (crude)	350	400	Large
India <sup>9</sup>	1,630	1,600	110,000
Italy (includes steatite)	180	180	NA
Japan <sup>9</sup>	136	140	100,000
Korea, Republic of <sup>9</sup>	8323	320	81,000
Pakistan	8300	300	NA
South Africa <sup>9</sup>	<sup>8</sup> 439	370	NA
Turkey	843	40	15,000
Other countries (includes crude)9	<u>707</u>	<u>700</u>	<u>Large</u>
World total (rounded)	7,130	7,000	Large

<u>World Resources</u>:<sup>7</sup> 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.

<u>Substitutes</u>: 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.

<sup>&</sup>lt;sup>e</sup>Estimated. NA Not available.

<sup>&</sup>lt;sup>1</sup>All statistics do not include pyrophyllite unless otherwise specified.

<sup>&</sup>lt;sup>2</sup>Defined as sold by producers + imports – exports.

<sup>&</sup>lt;sup>3</sup>Average ex-works unit value of milled talc sold by U.S. producers, based on data reported by companies.

<sup>&</sup>lt;sup>4</sup>Includes only companies that mine talc or pyrophyllite. Excludes office workers and mills that process imported or domestically purchased material.

<sup>&</sup>lt;sup>5</sup>Defined as imports – exports.

<sup>&</sup>lt;sup>6</sup>Includes Hong Kong.

 $<sup>{}^{7}\</sup>mbox{See}$  Appendix C for resource and reserve definitions and information concerning data sources.

<sup>&</sup>lt;sup>8</sup>Reported.

<sup>&</sup>lt;sup>9</sup>Includes pyrophyllite.