

SPI Supplies Division

Structure Probe, Inc.

P.O. Box 656 West Chester, PA 19381-0656 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

spi3spi@2spi.com

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: April 14, 2016

[SPI #02702-AB, 02702A-AB](#)

[Anthophyllite Asbestos Standards](#)

Section 1: Identification

Chemical Name/Synonyms Anthophyllite Asbestos

Chemical family Hydrous silicates of magnesium and iron

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Product or Trade Name Asbestos, anthophyllite

CAS #'s 17068-78-9

Chemical Formula..... $(\text{Mg,Fe})_7\text{Si}_8\text{O}_{22}(\text{OH})_2$

INTENDED USE: Laboratory standard in the microscopy laboratory.

HAZARDS IDENTIFICATION

Classification of the substance:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Carcinogen : category 1A

Target organ: Lungs

Skin irritation: category 2

Eye irritation: category 2A

Acute toxicity, dermal: category 4

RTECS# CI6478000

Tumorigen

Mutagen

Natural product

Pictograms:



Signal Word: Danger

Hazard Statements:

- H303 May be harmful if swallowed.
- H315 Causes skin irritation.
- H320 Causes eye irritation
- H331 Toxic if inhaled.
- H350 May cause cancer.

Precautionary Statements

- P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray
- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash thoroughly after handling.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P284 Wear respiratory protection.

NFPA Rating (estimated)

Health 1
Flammability..... 0
Reactivity 0

Section 2: Composition

Name	CAS #	EC#	Approximate Weight %
Anthophyllite	17068-78-9	Not available	>99.99%

Confirmed carcinogen by ACGIH, IARC, OSHA AND NTP.

Section 3: Hazard Identification

Potential Health Effects:

Acute: Overexposure to breathing asbestos may cause asbestosis, pulmonary fibrosis, mesothelioma, other lung disorders or cancer. Handling of materials and smoking or eating prior to washing could be hazardous. Medical examination and x-rays are required to determine signs & symptoms of exposure.

Routes of exposure: Inhalation, Skin contact, Ingestion

Medical Conditions Aggravated by Exposure:

Pulmonary disease

Occupational Exposure Limits:

ACGIH TLV: 0.1 fiber/cc (as TWA).

A1 (ACGIH 1998. For fibers longer than 5A° with an aspect ratio equal to or greater than 3:1 as determined at 400-450X magnification by the membrane filter method).

ACGIH: Confirmed human carcinogen.

NIOSH Recommendations (NREC):

NIOSH REL to Asbestos: air: 100M
[NIOSH DHHS # 92-100, 1992].

TWA 0.1 fiber/cc in a 400 L air sample

NTP 11th Report on Carcinogens, 2004: Known to be human carcinogen.

Incompatibilities:

Strong oxidizers, strong acids, and bases

Route of entry: Inhalation, Skin contact, Ingestion

Target organs: Lungs

Symptoms:

There are not acute signs or symptoms associated with asbestos. Diseases associated with over exposure are chronic, generally taking from 10 to 40 years to become apparent.

Section 4: First Aid Measures

Eyes: In case of contact, immediately flush eyes with copious amounts of flowing water for at least 15 minutes, retracting eye lids often. Get medical attention immediately. Contact lenses should not be worn when working with this product.

Skin: Wash skin thoroughly with mild soap and water. Flush with copious amounts of water for 15 minutes.

Inhalation: Move the exposed person to fresh air at once. Support breathing. If symptoms persist contact physician.

Ingestion: Get medical aid immediately.

Section 5: Fire Fighting Measures

Flammability classification: Not classified.

Heat resistant up to 500°C; is completely decomposed at a temperature of 1000°C.

Flash Point/Method: Not known

Auto-Ignition Temperature: Not determined

Flammable Limits:

Lower: Not applicable

Upper: Not applicable

Extinguishing Media: Water, Foam, Dry Chemical

Unusual Fire Hazards: Negligible fire and explosion hazard. Toxic gases and asbestos particulate may be released in a fire.

Firefighting procedures/instructions: Use NIOSH approved self-contained breathing apparatus and full protective equipment.

Properties that could increase fire or explosion hazard: Combustibility of this material results from paraffin lubrication.

Section 6: Accidental Release Measures

Use HEPA vacuum wet methods when feasible. Use appropriate personal protection for clean-up personnel.

Section 7: Handling and Storage

Storage and handling:

Store in well-sealed container in cool, dry area in accordance with all current regulations and standards.

Section 8: Exposure Controls and Personal Protection

ANSI approved eye wash and deluge shower should be available in the work area.

Personal Protective Equipment (PPE):

Eye/Face Protection: ANSI 87.1 approved chemical safety glasses with side shield.

Protective gloves: Rubber gloves.

Protective clothing: Wear protective clothing to prevent skin contact. Do NOT take working clothes home.

Respiratory Protection:

Wear NIOSH approved respirator in accordance with 29CFR1910.1001.

Other: Wash prior to eating, drinking, or smoking. Avoid ingestion or breathing of dust.

Section 9: Physical and Chemical Properties

Appearance: Fibrous solid

Color: White, green, brown or gray

pH: Not applicable

Odor: None

Vapor Pressure: Not applicable

Vapor Density (Air=1): Not available

Boiling Point/Range: Not available

Melting Point/Range: Decomposes above 950 °C

Specific Gravity: 2.857-3.2 g/cc

Solubility in water: None

Softening Point: Not determined

Molecular Formula: $(\text{Mg,Fe})_7\text{Si}_8\text{O}_{22}(\text{OH})_2$

Molecular Weight: 1171.51

%Volatile by Volume: Not determined

Evaporation Rate (n-butyl acetate = 1): Not available

Viscosity: Not available

Section 10: Stability and Reactivity

Chemical Stability: The product is stable under normal use conditions.

Conditions to Avoid:

Prevent dispersion of dust. Avoid all contact. Avoid airborne concentrations at or above OSHA PEL.

Incompatibility (materials to avoid):

Strong oxidizers, strong acids, and bases.

Hazardous Products of Decomposition:

None known

Reactions with Air and Water:

Avoid airborne concentrations at or above OSHA PEL.

Section 11: Toxicological Information

RTECS# CI6478000
Tumorigen
Mutagen
Natural product

Known human carcinogen.
Smoking enhances the risk of lung cancer.

MUTATION DATA (MUT):

System	Organism	Cell Type	Dose	Source
morphological transformation	hamster	embryo	3500 µg/m ³	CRNGDP
DNA inhibitor	hamster	lung	250 mg/L	TIVIEQ
cytogenic analysis	hamster	ovary	10 mg/L	CSHCAL

CRNGDP: Carcinogenesis (London)(Oxford Univ. Press, Pinkhill House, Southfield Road, Eynsham, Oxford OX8 1JJ, UK) V.1- 1980- [9, 8921, 1988]

TIVIEQ: Toxicology in Vitro (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987- [1, 71, 1987]

CSHCAL: Cold Spring Harbor Conferences on Cell Proliferation (Cold Spring Harbor, NY) V.14-10, 1974- 1983.[4, 941, 1977]

TUMORIGENIC DATA (TUM):

Route	Organism	Dose	Duration	Source
inhalation	rat	TCLo 11 mg/m ³	1 Year	BJCAAI (1)
intraperitoneal	rat	TDLo 250 mg/kg		ZHYGAM
intrapleural	rat	TDLo 300 mg/kg	12 Weeks	ZHYGAM
intrapleural	rat	TDLo 200 mg/kg		BJCAAI (2)
intrapleural	hamster	TDLo 83 mg/kg		31BYAP
intrapleural	rat	TD 2400 mg/kg	34 weeks	IAPUDO

BJCAAI (1): British Journal of Cancer (Macmillan Press Ltd., Houndmills, Basingstoke, Hants. RG21 2XS, UK) v.1- 1947- [29, 252, 1974].

ZHYGAM: Zeitschrift fuer die Gesamte Hygiene und Ihre Grezgebiete (VEB Verlag Volk und Gesundheit, Neue Gruenstr. 18, Berlin DDR-1020, Ger. Dem. Rep.) v.1- 1955- [32, 89, 1996]

BJCAAI (2): British Journal of Cancer (Macmillan Press Ltd., Houndmills, Basingstoke, Hants. RG21 2XS, UK) v.1- 1947- [28, 173, 1973].

31BYAP: "Experimental Lung Cancer: Carcinogenesis and Bioassays, International Symposium, 1974," Karbe, E., and J.F. Park, eds., Springer-Verlag New York, Inc., 1974 [-, 92, 1974].

IAPUDO: IARC Publications (WHO Publications Centre USA, 49 Sheridan Ave., Albany, NY 12210) No. 27- 1979- [30, 343, 1980].

TOXICITY DATA (TOX):

Route	Organism	Dose	Duration	Source
in vitro	dog kidney	IC50 330 mg/L	17Hours	TIVIEQ

TIVIEQ: Toxicology in Vitro (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) v.1- 1987- [1, 77, 1987].

Section 12: Ecological Information

None available

Section 13: Disposal Considerations

Bury waste is solid landfill as required in 29CFR1910.1001. Comply with all applicable OSHA, Federal, State and Local regulations.

Section 14: Transport Information

US DOT:

According to 49 CFR 172.01

Name: Asbestos

Class: 9

UN Number: NA 2212

Packing Group: III

Label Code: Class 9

IATA:

Name: Asbestos Amphibole

UN Number: UN 2212

Class: 9

Forbidden

Section 15: Regulatory Information

United States:

TSCA

This product is listed under the TSCA Inventory.

TSCA Section 12b:

CAS# 17068-78-9 Anthophyllite asbestos

Section 6, 0.1% de minimus concentration (see 40 CFR 763)

CERCLA:

This product has an RQ of 1 pound under CERCLA.

SARA:

Section 313

This product is listed under SARA Section 313.

Acute: No

Chronic: Yes

Fire: No

Reactive: No

Sudden Release: No

STATE RIGHT-TO-KNOW:

CAS# 17068-78-9, Anthophyllite asbestos, is listed on the MA, MN, NJ, and PA state right-to-know lists.

California Prop. 65:

Asbestos a known carcinogen under California Prop. 65.

US Statements:

Confirmed carcinogen. Target organs: Lung

STANDARDS AND REGULATIONS:

MSHA Standard – air: TWA 5 fiber/cc (fiber > 5um)

OSHA – Cancer hazard

OEL-Australia: 0.1 f/mL, JUL 2008

OEL- Denmark: TWA 0.1 f/cc, carc, May 2011

OEL- Finland: TWA 0.1 f/cc, Nov 2011

OEL-Iceland: TWA 0.1 f/cc, carc, Nov2011

OEL-Japan: OEL 0.003 fcc, 1 carc, May2012

OEL-Mexico: TWA 2 fibers/cc, 2004

OEL New Zealand: TWA 0.1 fiber/ml, STEL 0.6 fiber/ml, carcinogen, Jan2002

OEL-Norway: TWA 0.1 fiber/cm³, Jan1999

OEL-Sweden: TWA 0.1 f/cc, Carcinogen, Jun2005

OEL-Switzerland: MAK-W 0.01 f/cc, carc 1, Jan2011

OEL in Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam: check ACGIH TLV

European/International Regulations:

European Labeling in Accordance with EC Directives

Hazard Symbols: T Toxic

Risk Phrases:

R23 Toxic by Inhalation

R45 May cause cancer

R48 Danger of serious damage to health by prolonged exposure

R49 May cause cancer by inhalation

Safety Phrases:

S53 Avoid exposure.

S45 In case of accident, or if you feel unwell, seek medical advice immediately (show the label where possible.)

Canada

This product has a WHMIS classification of D2B.

DSL/NDSL

This product, CAS# 17068-78-9 is not listed on the DSL List and is not listed on the NDSL List. However, CAS# 1332-21-4 asbestos is listed on the DSL List.

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal

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