

## 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 #02701-AB, 02701A-AB](#)

[Chrysotile A Rhodesian Asbestos Analytical Standard](#)

[SPI#02740-AB, 05740A-AB](#)

[Chrysotile B Canadian Asbestos Analytical Standard](#)

### Section 1: Identification

Chemical Name/Synonyms ..... Chrysotile Asbestos / White asbestos / Serpentine chrysotile

Chemical family ..... Hydrous silicates of magnesium

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, chrysotile

CAS #'s ..... 12001-29-5

Chemical Formula.....  $Mg_3Si_2H_4O_6$  /  $Mg_3(Si_2O_5)(OH)_4$

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# CI6478500

Tumorigen

Mutagen

Human Data

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 %
Chrysotile	12001-29-5	650-013-00-6	>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

**Inhalation Risk:**

Evaporation at 20 °C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

**Medical Conditions Aggravated by Exposure:**

Pulmonary disease

**Occupational Exposure Limits:**

TLV: 0.1 fiber/cc – Confirmed human carcinogen (A1).  
(ACGIH 2004. 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).

EU OEL: 0.1 fibers/cc (EU 2003).

NIOSH REL to ASBESTOS – air: 100M TWA 0.1 fiber/cc in a 400L air sample: NIOSH DHHS #92-100, 1992.

**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. Inhalation symptom: Cough.

**Effects of long-term or repeated exposure:**

The substance may have effects on the lungs, resulting in pulmonary fibrosis and mesothelioma. This substance is carcinogenic to humans.

**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:** 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.

### **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, gray, greenish, or yellowish

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 500°C

Specific Gravity: 2.2 to 2.6 g/cc

Solubility in water: None

Softening Point: Not determined

Molecular Formula:  $Mg_3Si_2H_4O_6$  /  $Mg_3(Si_2O_5)(OH)_4$

Molecular Mass: 277

%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# C16478500  
Tumorigen  
Mutagen  
Human Data  
Natural product

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

International Chemical Safety Card # 0014

Toxicity Data: Asbestos, Chrysotile

Route	Organism	Dose	Duration
Inhalation	Human	TCLo 2.8 fb/cc	5 Yr
Intraperitoneal	Rat	LDLo 300 mg/kg	
Intraleural	Rat	TDLo 150 mg/kg	
Intraperitoneal	Mouse	TDLo 100 mg/kg	
Intratracheal	Rat	TDLo 10 mg/kg (TXAPA9 207,221,2005)	
Intratracheal	Rat	TDLo 54 mg/kg (TOVEFN -,21,2008)	
in Vitro	Dog kidney	IC50 0.95 ug/cm2	7 Day
in Vitro	Dog kidney	IC50 >1000 mg/L	17 Hour
in Vitro	Dog kidney	ICLo 5 ug/well	5 Hour

## **Section 12: Ecological Information**

None available.

## **Section 13: Disposal Considerations**

Bury waste in 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: White Asbestos (Chrysotile)  
Class: 9  
UN Number: UN 2590

Packing Group: III  
Label Code: Class 9

IATA:  
Name: White Asbestos (Chrysotile)  
UN Number: UN 2590  
Class:9  
Packing Group: III

## **Section 15: Regulatory Information**

United States:

TSCA  
This product is listed under the TSCA Inventory.

TSCA Section 12b:  
CAS# 12001-29-5 Chrysotile 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# 12001-29-5, Asbestos, Chrysotile, 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

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# 12001-28-4, 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 body tissues of fluids.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however SPI Supplies and Structure Probe, Inc. make no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. Be aware of the Structure Probe, Inc. Copyright Policy. Structure Probe, Inc. grants a nonexclusive license to make unlimited copies of this safety sheet for internal use only. Quite obviously, this information would pertain only to this material when purchased from SPI Supplies as product from other sources, with other ingredients and impurity levels could have substantially different properties.