

## 1. PRODUCT INFORMATION

CHEMICAL NAME: Exfoliated Vermiculite  
CAS NUMBER: 1318-00-9  
CHEMICAL FAMILY: Hydro-phlogopite  
CHEMICAL FORMULA:  $(\text{Mg Fe...Fe...})_3 [(\text{SiAl})_4 \text{O}_{10}] [\text{OH}]_2 \cdot 4\text{H}_2\text{O}$

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## 2. COMPOSITIONS AND INFORMATION ON INGREDIENTS

Name	% By Weight	CAS #	Toxicological Data
SiO <sub>2</sub>	41.20%	Not applicable	Not applicable
Al <sub>2</sub> O <sub>3</sub>	12.68%	Not applicable	Not applicable
Fe <sub>2</sub> O <sub>3</sub>	4.06%	Not applicable	Not applicable
FeO	1.54%	Not applicable	Not applicable
CaO	0.96%	Not applicable	Not applicable
MgO	24.22%	Not applicable	Not applicable
TiO <sub>2</sub>	1.33%	Not applicable	Not applicable
K <sub>2</sub> O	5.97%	Not applicable	Not applicable
P <sub>2</sub> O <sub>5</sub>	0.06%	Not applicable	Not applicable
H <sub>2</sub> O	3.00%	Not applicable	Not applicable
Na <sub>2</sub> O	1.60%	Not applicable	Not applicable
MnO	0.043%	Not applicable	Not applicable
TiFeO	5.71%	Not applicable	Not applicable
EVAPORATION	6.71%	Not applicable	Not applicable

NO ASBESTOS FIBERS WERE DETECTED IN SAMPLES BY POLARIZED LIGHT MICROSCOPY.

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## 3. SUMMARY OF HAZARDS

**Potential Acute Health Effects:** No specific information is available in our database regarding the other effects of this material for humans.

**Potential Chronic Health Effects:**

There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.

<b>CARCINOGENIC EFFECTS:</b>	Not available
<b>MUTAGENIC EFFECTS:</b>	Not available
<b>TERATOGENIC EFFECTS:</b>	Not available
<b>TOXICITY OF THE PRODUCT TO THE REPRODUCTIVE SYSTEM:</b>	Not available

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#### 4. CHEMICAL AND PHYSICAL PROPERTIES

<b>MELTING POINT:</b>	1320-1350 C	<b>VAPOR PRESSURE:</b>	Not applicable
<b>% VOLATILE BY VOLUME:</b>	Not applicable	<b>VAPOR DENSITY:</b>	Not applicable
<b>SOL. IN WATER:</b>	Insoluble	<b>SPECIFIC GRAVITY:</b>	0.7-1.1Kg/ml (H <sub>2</sub> O=1)
<b>PH (1% sol'n/water):</b>	6~7	<b>EVAPORATION ATE:</b>	6.71%
<b>APPEARANCE:</b>	Golden Dark Yellow Flake	<b>ODOR:</b>	None
<b>HEAT CONDUCTIVITY INHERIENT WATER</b>	0.045-0.06Kc/m >5%	<b>TENSILE STRENGTH ANTIBIOTIC</b>	1000-1500Kg/cubic cm Good

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#### 5. HEALTH EFFECTS

**SKIN:**

Repeated contact may cause mechanical irritation and drying of skin.

**EYES:**

Eye contact may cause mechanical irritation and dust could damage eye surfaces.

**INHALATION:**

Repeated exposure to respirable dust above the TLV can result in reduced lung function, reduced work capacity and increased susceptibility to other lung diseases.

**INGESTION:**

None known or anticipated.

**TARGET ORGAN:**

Respiratory System.

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#### 6. FIRST AID PROCEDURES

**EYE CONTACT:**

Do not rub eyes. Flush with water for 15 minutes. Seek medical attention.

**SKIN CONTACT:**

Wash effected areas with soap and water. If irritation persists, seek medical attention.

**INHALATION:**

If conditions should develop that require first aid, remove victim to fresh air. If necessary, begin artificial respiration or CPR by a trained person. Seek medical attention.

**INGESTION:**

There has been no known case of ore ingestion.

#### 7. EXPOSURE CONTROL & PERSONAL PROTECTION

**GLOVES:**

Rubber, leather or fabric to prevent mechanical irritation through friction. Be sure insides of gloves do not become contaminated with dust.

**VENTILATION:**

Local or general ventilation sufficient to maintain exposure below PEL.

**EYES:**

Wear protective glasses or goggles.

**RESPIRATOR:**

Approved air purifying or air supplied dust respirator. Refer to ANSI Z88.2 -1969 and 29 CFR 1910.134 if necessary to choose approved respirator.

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## **8. FIRE AND EXPLOSION HAZARD DATA**

LEL:	Not applicable
UEL:	Not applicable
FLAMMABLE LIMITS:	Not applicable
FLASH POINTS:	Not applicable
PRODUCTS OF COMBUSTION:	Not applicable
EXTINGUISHING MEDIA:	Dry chemical, carbon dioxide, water spray or foam.
SPECIAL FIRE-FIGHTING PROCEDURES:	Use procedures necessary to control the type of fires occurring in the area.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Negligible fire hazard when exposed to heat or flame.

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## **9. STABILITY AND REACTIVITY DATA**

STABILITY: This product is stable.

INCOMPATIBILITY: No compatibility? known.

**HAZARDOUS POLYMERIZATION:**

Will not undergo hazardous polymerization.

**HAZARDOUS DECOMPOSITION PRODUCTS OTHER THAN BY FIRE OR EXPLOSION:**

None known.

## **10. SPILLS, LEAK, AND DISPOSAL INFORMATION**

**SPILL AND LEAK:**

Avoid inhalation of dust. Sweep up and transfer material to secure container.

**DISPOSAL:**

Dispose of in accordance with local and federal environmental protection laws.

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## 11. SHIPPING INFORMATION

Not regulated for Transportation Purposes.

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## 12. ADDITIONAL INFORMATION

CALIFORNIA PROPOSITION 65 WARNINGS:

WARNING: This product contains a chemical known to the State of California to cause cancer.  
Chemical ingredient(s) requiring this warning: NONE

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Chemical ingredient(s) requiring this warning: NONE

Health Hazard	2
Fire Hazard	0
Reactivity	0
Personal Protection	E

HMIS (USA)

For additional non-emergency MSDS information, contact or write:

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