

## Section 1 – Product and Company Identification



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# Material Safety Data Sheet

**Product Name: HNT™**

**No: 0027**

**Chemical Name**

Halloysite (100%)

**Common Names**

## Section 2 – Hazard Information

**Physical State:** Solid. Powder.

**Color / Odor:** White color. Mild clay odor.

There is NO chemical present in this product at a concentration of 0.1% or greater classified as a carcinogen. Hazard and toxicity information for this material has not been established or tested.

**Inhalation**

Prolonged exposure to high airborne concentrations of dust may cause irritation of nose, throat and lungs with cough, difficulty breathing, shortness of breath or delayed lung fibrosis. Symptoms of lung fibrosis include coughing and breathlessness. Any occupational exposure must be monitored and controlled.

**Eye Contact**

Physical contact with airborne dust may cause mechanical irritation, inflammation or scratches to the surface of the eye.

**Ingestion**

Halloysite has low acute toxicity. No significant health hazards identified. No adverse health effects expected from normal, incidental ingestion.

**Skin Contact**

This material may cause irritation, dryness or abrasions with prolonged or repeated exposure.

## Section 3 – Composition / Information on Components

Material / % By Weight	CAS#	EINECS#	OSHA / OES PEL / MEL	ACGIH Limit
Halloysite / (100%)	12068-50-7	NE	NE	NE

Exposure limits for have not yet been established for Halloysite.

**NE = Not Established**

**January 16, 2008**

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**Section 4 - First Aid Measures**

<b>Inhalation</b>	Immediately remove to fresh air. Get medical attention if cough or other symptoms develop. If breathing has stopped, perform artificial respiration and seek prompt medical attention.
<b>Eye Contact</b>	Flush immediately with large amounts of clean water for at least 15 minutes, lifting eyelids occasionally. Check for and remove contact lenses if easily possible. Do not allow victim to rub eyes or keep eyes closed. If irritation persists or for imbedded foreign bodies, seek medical attention.
<b>Ingestion</b>	If large amounts are swallowed or symptoms develop, seek medical attention. Rinse mouth out with water. Never give anything by mouth to an unconscious person.
<b>Skin Contact</b>	No first aid needed. Wash exposed surfaces with soap and water. Obtain medical attention if irritation develops.

**Section 5 – Firefighting Measures**

Halloysite is non-combustible. No hazardous releases in case of fire.

In case of fire, all standard extinguishing agents are suitable. Use extinguishing media most appropriate for surrounding materials.

Avoid generation of dust.

**Section 6 – Accidental Release Measures**

Spilled material is a slipping hazard. Clean up materials immediately. Wear appropriate personal protective equipment (see Section 8). Maintain good standards of industrial hygiene (See Section 8).

Avoid dry sweeping. Collect spilled materials by ventilated vacuum system, water system or other means whereby dust creation is minimized. Avoid wind dispersal. Wash walking surfaces with detergent and water to reduce slipping hazard.

Avoid discharge into drains, watercourses or onto the ground.

Dispose of waste product according to applicable local, state and federal regulations.

**Section 7 - Handling and Storage**

Store tightly covered in a dry area.

When handling this material, use appropriate exhaust ventilation to eliminate dust formation. If ventilation is unsuitable, wear protective respiratory equipment. When handling this material, good industrial hygiene practices should be followed in order to avoid inhalation and contact with skin and eyes.

Workers should be trained to handle material without generating dust or spillage.

Facilities storing or utilizing this material should be equipped with an eyewash station.

### Section 8 - Exposure Control and Personal Protective Equipment

**Ingredient Name**
**Occupational Exposure Limits**

Halloysite

OSHA – TWA: *Exposure Limits for Halloysite have not yet been established.*ACGIH Limit– TWA: *Exposure Limits for this component have not yet been established.*
**Respiratory Protection:**

Use local exhaust as required to reduce exposure levels. Use closed system or local exhaust ventilation.

In cases of exposure to high levels of airborne dust, wear a NIOSH/MSHA approved personal respirator. Keep working area properly ventilated.

**Eye Protection:**

Wear approved safety goggles. Do not wear contact lenses when working with this product.

**Skin Protection:**

Suitable protective gloves should be worn for prolonged or repeated exposures. Use of protective clothing is good industrial practice.

Safety or non-slip shoes should be worn when working with this product.

### Section 9 – Physical and Chemical Properties

**Physical State**

Solid. Powder.

**Appearance / Odor**

White color. Mild clay odor.

**Melting Point**

NE

**Boiling Point**

Slurry 100 °C

**Flashpoint**

NE

**Specific Gravity (H<sub>2</sub>O=1)**

2.5

**Vapor Pressure (at 20°C)**

NE

**Vapor Density (Air=1)**

NE

**Solubility in Water**

Not soluble

**% Volatiles by Weight**

NE

**pH**

Slurry 4.0 – 6.5

**Molecular Formula**

NE

**Molecular Weight**

NE

### Section 10 – Stability and Reactivity

Stable under recommended storage and handling conditions (See Section 7).

Hazardous polymerization will not occur.

This material may be incompatible or react with hydrofluoric acid, strong alkalis.

Avoid dust generation.

### Section 11 – Toxicological Information

No component of this product at levels greater than 0.1% is identified as a carcinogen by established regulatory criteria.

Studies have not identified any significant carcinogenic, mutagenic, teratogenic, or toxic reproductive effects.

Toxicological information and testing regarding this material has not been established at this time.

<b>Inhalation</b>	Prolonged inhalation of respirable dust may cause lung fibrosis. Principal symptoms are cough and breathlessness.
<b>Eye Contact</b>	Airborne dust may cause irritation or damage to the eyes.
<b>Ingestion</b>	There are no determined toxicological effects for this material. Halloysite: By analogy acute LD50 (rat) oral >5000 mg/kg. No determined toxicological effects.
<b>Skin Contact</b>	Prolonged or repeated exposure to dust could cause skin irritation, dryness or abrasion.

### Section 12 – Ecological Information

<b>Environmental Statement</b>	Halloysite is persistent and non-biodegradable, but as it is a naturally occurring mineral it is unlikely to have any long term effect on the environment. However, this does not exclude the possibility that large or frequent spills can potentially have a harmful or damaging effect on the environment.
<b>Mobility</b>	Halloysite is insoluble in water. Non-volatile. Halloysite is not likely to move rapidly with surface or groundwater flows because it is not soluble in water.
<b>Degradability</b>	Halloysite is not biodegradable.
<b>Accumulation</b>	No testing has been performed by the manufacturer. This product is not likely to be bioavailable due to its lack of water solubility. Not expected to be bioaccumulating.
<b>Ecotoxicity</b>	No testing has been performed by the manufacturer on this material. Halloysite: Fish: LC50 96 Hr.= >100mg/L; Daphnia: EC50 48 Hr.= >1mg/L; Algae: IC50 72 Hr.= >100mg/L

### Section 13 – Disposal Considerations

Follow local and national regulations for solid waste handling. Use only approved transporters, recyclers, treatment, storage or disposal facilities.

Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste.

Refer to Section 7 for Handling and Storage information.

### Section 14 – Transport Information

This substance is not established as a DOT / IMO hazardous material; not established as a dangerous substance as defined by regulation.

Review the DOT standard prior to transporting this substance.

### Section 15 – Regulatory Information

This material safety data sheet is intended to meet the specific requirements of OSHA's General Industry Standard at 29 CFR 1910.1200.

This product contains no ingredient present at 0.1% or greater that is listed as a carcinogen or potential carcinogen by IARC, NTP or OSHA.

<b>Constituent:</b>	Halloysite		
<b>US Federal Regulations</b>			
SARA 302 / 303			
SARA 311 / 312	X		
SARA 313			
Form R			
CERCLA			
TSCA	X		
<b>Inventories</b>			
AICS	X		
DSL	X		
EU			
EINECS	X		
ENCS			
KECI			
WHMIS			
MITI			
PCCS			
China Inventory of Existing Chemical Substances			

X = Listed / Regulated

**Section 16 – Miscellaneous Information**

Workers should be trained to handle products without creating dust or spillage.

The information in this Material Safety Data Sheet is based upon current knowledge, experience and data considered to be accurate at the time of its preparation. Further testing of this material may be required prior to introduction into commerce.