

## Section 1 – Product and Company Identification



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Material  
Safety  
Data  
Sheet

**Product Name: HNT™ - SM1**

**No: 0018**

<b>Chemical Name</b>	Halloysite (98-99.9%)
<b>Common Names</b>	Dragonite

<b>Chemical Name</b>	Other – Trade Secret (0.1-2.0%)
<b>Common Names</b>	

## Section 2 – Hazard Information

**Physical State:** Powder.  
**Color:** Slight Almond to White.

<b>Inhalation</b>	Prolonged inhalation of respirable dust may cause lung fibrosis. Prolonged exposure symptoms include cough and breathlessness.
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<b>Eye contact</b>	Airborne dust may cause mechanical irritation and possible inflammation to the eyes.
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<b>Ingestion</b>	Halloysite is of low acute toxicity. The additional constituents in trade secret component treated halloysite products, at the concentrations specified, do not compromise this classification.
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<b>Skin contact</b>	Trade secret component-treated halloysite could cause irritation, dryness, and abrasion to skin with prolonged or repeated exposure.
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## Section 3 – Composition/Information on Components

Material / % By Weight	CAS#	EINECS#	OSHA/OES PEL/MEL	ACGIH Limit
Halloysite (98-99.9%)	12068-50-7	310-127-6 (kaolin)	5 mg/m <sup>3</sup> TWA Respirable Dust  15 mg/m <sup>3</sup> TWA Total Dusts	3 mg/m <sup>3</sup> TWA Respirable Dust  10 mg/m <sup>3</sup> TWA Total Dusts
Trade Secret Component / 0.1-2.0%	Trade Secret	Trade Secret	None Listed	None Listed

**NE = Not Established**

**May 21, 2007**

1

Product Name: HNT™ - SM1

No: 0018

#### Section 4 - First Aid Measures

**Inhalation**

Immediately remove to fresh air. If breathing has stopped perform artificial respiration. If needed, administer oxygen. Seek prompt medical attention if any symptoms develop.

**Eye contact**

Flush immediately with large amounts of clean water, lifting eyelids occasionally. If irritation persists or for imbedded foreign bodies, seek medical attention.

**Ingestion**

Rinse mouth out with water. If conscious, give 2 glasses of water. If large amounts are swallowed or symptoms develop, seek medical attention.

**Skin contact**

Remove contaminated clothing. Wash with soap and water. Obtain medical attention if irritation persists. Wash clothing before reuse.

#### Section 5 - Firefighting Measures

Non flammable. No special precaution necessary. No hazardous releases in case of fire.

Use standard procedures; wear personal protective equipment.

Use extinguishing media appropriate to the surrounding fire.

#### Section 6 - Accidental Release Measures

Avoid dry sweeping. Collect spilled materials by ventilated vacuum system, water spraying, or other means whereby dust creation is minimized. Avoid wind dispersal.

Maintain good standards of industrial hygiene, including maintaining exposure below established limits and/or wear suitable personal protection (See Section 8). Dispose of waste product according to applicable local, state and federal regulations.

#### Section 7 - Handling and Storage

Store covered in a dry, cool, well-ventilated area. Containers should be kept closed tightly, and maintained in good condition.

When handling, 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.

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May 21, 2007

2

Product Name: HNT™ - SM1

No: 0018

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

Ingredient name	Occupational Exposure Limits
Halloysite	OSHA – TWA: 5.0mg/m <sup>3</sup> 8 hour(s). Respirable dust. OSHA – TWA: 15.0mg/m <sup>3</sup> 8 hour(s). Total dusts.  ACGIH Limit - TWA: 3.0mg/m <sup>3</sup> 8 hour(s). Respirable dust. ACGIH Limit - TWA: 10.0mg/m <sup>3</sup> 8 hour(s). Total dusts.
<b>Respiratory Protection:</b>	Use local exhaust as required to reduce exposures below applicable occupational exposure limitations. In cases of exposure to high levels of airborne dust, wear a personal respirator. Ensure that exposure limits are maintained and/or use respiratory protection.
<b>Eye Protection:</b>	Wear safety glasses or chemical goggles with side shields to prevent eye contact. Use dust goggles if high dust concentration is generated. Do not wear contact lenses when working with this product.
<b>Skin Protection:</b>	Protective gloves should be worn for prolonged or repeated exposures. Use of protective clothing is good industrial practice.

### Section 9 - Physical & Chemical Properties

Physical State	Solid. Pellets.
Appearance / Odor	Tan or cream color / Faint odor
Melting Point	≥155°C
Boiling Point	NE
Flashpoint	NE
Specific Gravity (H <sub>2</sub> O=1)	NE
Vapor Pressure (at 20°C)	NE
Vapor Density (Air=1)	NE
Solubility in Water	Negligible
% Volatiles by Weight	NE
pH	Slurry 4.0 – 6.5
Molecular Formula	NE
Molecular Weight	NE

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May 21, 2007

3

Product Name: HNT™ - SM1

No: 0018

### Section 10 – Stability and Reactivity

Stable non reactive.

Non explosive. Incompatible with strong oxidizing materials, hydrofluoric acid, strong bases.

No hazardous decomposition, by-products or polymerization known.

### 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 sensitization, carcinogenic, mutagenic, teratogenic, or toxic reproductive effects.

<b>Inhalation</b>	Halloysite is of low acute toxicity. Long term exposure to dust could cause damage to the respiratory system. Prolonged inhalation of respirable dust may cause lung fibrosis. Principal symptoms are cough and breathlessness.  Exposure should be kept to below the occupational exposure standard, at which level no effects on chest health would be expected.
<b>Eye contact</b>	Airborne dust may cause irritation to the eyes.
<b>Ingestion</b>	No determined toxicological effects. Halloysite: By analogy acute LD50 (rat) >5000mg/kg.
<b>Skin contact</b>	Prolonged or repeated exposure to dust could cause skin irritation, dryness and abrasion. Molten material may cause thermal burns.

### Section 12 – Ecological Information

<b>Environmental Statement</b>	Halloysite is persistent and non-biodegradable but is unlikely to have any long term effect on the environment. <del>Trade secret component may undergo biodegradation.</del>
<b>Mobility</b>	Solid. Negligible solubility. Non-volatile.
<b>Degradability</b>	Largely persistent and non-biodegradable although the trade secret component may biodegrade.
<b>Accumulation</b>	No bio-accumulation or bio-magnification identified.
<b>Ecotoxicity</b>	No testing has been performed by the manufacturer.

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May 21, 2007

4

**Product Name: HNT™ - SM1**

**No: 0018**

### Section 13 – Disposal Considerations

Follow local and national regulations for solid waste handling. Use only approved transporters, recyclers, treatment, storage or disposal facilities. The material should be buried to prevent airborne respirable dusts being emitted.

Refer to Section 7 for Handling and Storage information.

### Section 14 – Transport Information

Not a DOT/IMO hazardous material; not a dangerous substance as defined by regulation.

### 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.

Constituent:	Halloysite	Trade Secret Component		
<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	X		
IECS				
EINECS	X	X		
ENCS				
ECL				
PICCS				
MITI	X			

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May 21, 2007

5

**Product Name: HNT™ - SM1**

**No: 0018**

**Section 16 – Miscellaneous Information**

Workers should be trained to handle products without generating dust or static electricity.

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. No responsibility is accepted that the information is sufficient or correct in all cases.

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**May 21, 2007**

**6**