

# SAFETY DATA SHEET

## Section 1. Identification

<b>Product name</b>	PYRAX® HS	<b><u>In case of emergency</u></b>
<b>Code</b>	33207	1-203-295-2140
<b>Supplier/Manufacturer</b>	Vanderbilt Minerals, LLC 33 Winfield Street Norwalk, CT 06855	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887
<b>Chemical name</b>	Hydrated aluminum silicate mineral	
<b>Synonym</b>	Pyrophyllite	
<b>Material uses</b>	Additive/filler ceramics, paint, etc.	
<b>Product type</b>	Solid.	

**Relevant identified uses of the substance or mixture and uses advised against**

Not applicable.

## Section 2. Hazards identification

<b>OSHA/HCS status</b>	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Classification of the substance or mixture</b>	CARCINOGENICITY (inhalation) - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) (inhalation) - Category 1

**GHS label elements**

**Hazard pictograms**



<b>Signal word</b>	Danger
<b>Hazard statements</b>	May cause cancer if inhaled. Causes damage to organs through prolonged or repeated exposure if inhaled. (respiratory tract)

**Precautionary statements**

<b>General</b>	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Avoid excessive dust generation. Avoid breathing dust. Use only with adequate ventilation.
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
<b>Response</b>	Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention.
<b>Storage</b>	Store locked up. Store in a dry place.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	May cause mechanical eye or skin irritation in high concentrations. Product may become slippery when wet.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	Substance
<b>Chemical name</b>	Hydrated aluminum silicate mineral

Ingredient name	CAS number	% by weight
quartz	14808-60-7	50 - 60
pyrophyllite	12269-78-2	<40
mica	12001-26-2	18 - 25
kaolin clay	1332-58-7	5 - 10

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	Flush with plenty of water for at least 15 minutes, occasionally lifting upper and lower eyelids. If irritation develops and persists, seek medical attention.
<b>Skin contact</b>	Flush skin with plenty of water. Seek medical attention if irritation develops.
<b>Inhalation</b>	Move to fresh air. If respiratory distress develops, seek medical attention.
<b>Ingestion</b>	Unlikely to be toxic by ingestion. Rinse mouth out with water. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention if significant quantities have been ingested or symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	Not a primary eye irritant. May cause mechanical irritation.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	No specific data.
<b>Skin contact</b>	No specific data.
<b>Inhalation</b>	No specific data.
<b>Ingestion</b>	No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treat symptomatically.
<b>Specific treatments</b>	No specific treatment.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	This product is not combustible. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	No restrictions on extinguishing media for this product.

## Section 5. Fire-fighting measures

<b>Specific hazards arising from the chemical</b>	No specific fire or explosion hazard. This product is not flammable and does not support fire.
<b>Hazardous thermal decomposition products</b>	There are no hazardous decomposition products.
<b>Special protective actions for fire-fighters</b>	Product may become slippery when wet.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

<b>Small spill</b>	Minimize dust generation. Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	Minimize dust generation. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Advice on general occupational hygiene</b>	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### Recommended Storage

Store away from direct sunlight in dry conditions. Close container after use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
pyrophyllite	<b>OSHA PEL (United States).</b> TWA: 15 mg/m <sup>3</sup> total dust; 5 mg/m <sup>3</sup> respirable dust (PNOR)
quartz	<b>ACGIH TLV (United States).</b> TWA: 10 mg/m <sup>3</sup> total dust; 3 mg/m <sup>3</sup> respirable dust (PNOS)
mica	<b>OSHA PEL (United States).</b> TWA respirable fraction formula: 10 mg/m <sup>3</sup> / % SiO <sub>2</sub> +2
kaolin clay	<b>ACGIH TLV (United States).</b> TWA 0.025 mg/m <sup>3</sup> from respirable fraction
	<b>OSHA PEL (United States).</b> TWA 3 mg/m <sup>3</sup> from respirable fraction
	<b>ACGIH TLV (United States).</b> TWA 3 mg/m <sup>3</sup> from respirable fraction
	<b>OSHA PEL (United States).</b> TWA 5 mg/m <sup>3</sup> from respirable fraction
	<b>ACGIH TLV (United States).</b> TWA 2 mg/m <sup>3</sup> from respirable fraction

### Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: splash goggles

#### Skin protection

##### Hand protection

Protective gloves should be worn under normal conditions of use.

## Section 8. Exposure controls/personal protection

<b>Body protection</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Other skin protection</b>	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: disposable particulate mask

### Personal protective equipment (Pictograms)



## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid. [Powdered solid]
<b>Color</b>	White to tan
<b>Odor</b>	Odorless.
<b>pH</b>	6.9 [Conc. (% w/w): 10%]
<b>Melting point</b>	Not available.
<b>Boiling point</b>	Not applicable.
<b>Flash point</b>	[Product does not sustain combustion.]
<b>Evaporation rate</b>	Not applicable.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	Not available.
<b>Solubility in water</b>	Insoluble
<b>Viscosity</b>	Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	Not reactive.
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No specific data.
<b>Incompatible materials</b>	No specific data.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

KAOLIN CLAY: oral LD50, rat: 149 g/kg (Federation of American Societies for Experimental Biology, 1977; as cited by Cosmetic Ingredient Review, 2003). Not sufficient for classification.

#### Irritation/Corrosion

CRYSTALLINE SILICA: Not irritating to the skin or eyes based on OECD 404 and 405 studies, respectively (EUROSIL, 2008).

KAOLIN CLAY: Not irritating to the skin or eyes based on OECD 404 and 405 studies, respectively (European Kaolin and Plastic Clays Association, 2005).

Exposure to high levels of any dust may result in mechanical irritation of the respiratory tract, skin and eyes; not sufficient for classification.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

##### Conclusion/Summary

CRYSTALLINE SILICA: Silica dust, crystalline, in the form of quartz is classified by IARC as Group 1 (carcinogenic to humans) based on "sufficient evidence" in occupationally exposed humans and sufficient evidence in animals. Crystalline silica of respirable size is classified by the NTP as a known human carcinogen. In its 2013 Proposed Rule on respirable crystalline silica, "OSHA preliminarily concludes that the human data provides ample evidence that exposure to respirable crystalline silica increases the risk of lung cancer among workers", while NIOSH identifies various crystalline or fused silicas a potential occupational carcinogens. However, not all epidemiologic and animal studies have demonstrated a cancer association and some uncertainty exists concerning the cancer classification of crystalline silica. For example, in Europe, a recent review concludes that crystalline silica should not be classified as a carcinogen since silicosis of the lung is the key endpoint for classification (Morfeld, 2010).

##### Classification

Product/ingredient name	OSHA	IARC	NTP
quartz	(a)	1	Known to be a human carcinogen.
kaolin clay (b)	-	-	

(a) OSHA does not have a set list of carcinogens or potential carcinogens, but defers to the IARC and NTP classifications. For quartz, see OSHA's qualitative statement in text above.

(b) Classified by ACGIH as A4 (not classifiable as a human carcinogen).

#### Reproductive toxicity

Not available.

#### Teratogenicity

KAOLIN CLAY: No fetal effects in rats in the absence of maternal toxicity (Patterson et al, 1977).

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

KAOLIN CLAY: Inhalation of respirable kaolin clay dust can cause kaolinosis, a form of pneumoconiosis.

CRYSTALLINE SILICA: Inhalation of respirable crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis.

High levels of exposure to any dust may aggravate pre-existing respiratory conditions.

## Section 11. Toxicological information

### Aspiration hazard

Not applicable.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Inhalation.

### Potential chronic health effects

#### **General**

Not available.

#### **Carcinogenicity**

May cause cancer if inhaled. Risk of cancer depends on duration and level of exposure.

#### **Mutagenicity**

No known significant effects or critical hazards.

#### **Teratogenicity**

No known significant effects or critical hazards.

#### **Developmental effects**

No known significant effects or critical hazards.

#### **Fertility effects**

No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

### Other information

Not available.

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Other adverse effects

No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG\* : Packing group

## Section 15. Regulatory information

### U.S. Federal regulations

#### **United States inventory (TSCA 8b)**

All components are listed or exempted.

### SARA 302/304

#### Composition/information on ingredients

No products were found.

### SARA 311/312

#### **Classification**

Delayed (chronic) health hazard

### State regulations

#### **Massachusetts**

The following components are listed: SILICA, CRYSTALLINE, QUARTZ; mica; Kaolin

#### **New York**

None of the components are listed.

#### **New Jersey**

The following components are listed: SILICA, QUARTZ; QUARTZ (SiO<sub>2</sub>); mica; KAOLIN

#### **Pennsylvania**

The following components are listed: QUARTZ (SiO<sub>2</sub>); Kaolin

#### **California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

### International regulations

#### **Canada inventory**

All components are listed or exempted.

#### **Europe inventory**

All components are listed or exempted.

#### **International lists**



## Section 15. Regulatory information

**Australia inventory (AICS):** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Japan inventory:** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted.

**Malaysia Inventory (EHS Register):** All components are listed or exempted.

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Philippines inventory (PICCS):** All components are listed or exempted.

**Taiwan inventory (CSNN):** All components are listed or exempted.

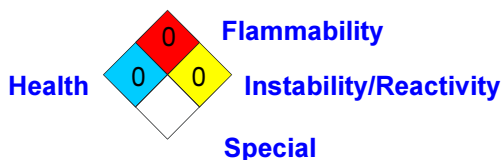
## Section 16. Other information

### Hazardous Material Identification System (U.S.A.)

Health	*	1
Flammability		0
Physical hazards		0
Personal protection		E

\* Chronic Potential

### National Fire Protection Association (U.S.A.)



**The customer is responsible for determining the PPE code for this material.**

### History

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### Key to abbreviations

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

### Information contact

**Vanderbilt Global Services, LLC**

**Corporate Risk Management**

**1-203-295-2143**

**Visit [www.vanderbiltminerals.com](http://www.vanderbiltminerals.com) for more information.**

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