R.T. Vanderbilt Company, Inc.
INDUSTRIAL MINERALS AND CHEMICALS

Material Safety Data Sheet

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Section I. Chemical Product and Company Identification

Product Name/ Trade Name	**PYRAX® HS**	**Code**	33207
		CAS#	12269-78-2
Supplier	R. T. Vanderbilt Company, Inc. 30 Winfield Street Norwalk, CT 06855	**In case of Emergency**	(203) 853-1400
Synonym	Pyrophyllite	**Protective Clothing**	
Chemical Name	Hydrated aluminum silicate mineral		
Chemical Family	Phylosilicates (structural).		
Manufacturer	R. T. Vanderbilt Company, Inc. 30 Winfield Street Norwalk, CT 06855	**Material Uses**	Additive/filler ceramics, paint, etc.

Section II. Composition and Information on Ingredients

Name	CAS #	% by Weight	TLV/PEL
quartz	14808-60-7	50-60	OSHA PEL: TWA respirable fraction formula: 10 mg/m^3 / % SiO_2 +2 ACGIH: TWA 0.05 mg/m^3 from respirable fraction
pyrophyllite	12269-78-2	<40	As particles not otherwise regulated (PNOR).
mica	12001-26-2	18-25	TWA 3 mg/m^3 from respirable fraction (OSHA)
kaolin clay	1332-58-7	5-10	TWA 5 mg/m^3 from respirable fraction (OSHA)
Total Product			TWA: 15 mg/m^3 total dust 5 mg/m^3 respirable dust (OSHA) As particles not otherwise regulated (PNOR).

Section III. Hazards Identification

Emergency Overview

Not an acute hazard. Contains quartz. May cause mechanical eye or skin irritation in high concentrations. As with all mineral spills, minimize dusting during clean-up. Do not breathe dust. Prolonged inhalation may cause lung injury. Product can become slippery when wet.

Target Organs

Pulmonary System (chronic risk).

Section IV. First Aid Measures

Eye Contact

Flush with plenty of flowing water. Get medical attention if irritation persists.

Skin Contact

Wash off with water.

Inhalation

Allow the victim to rest in a well ventilated area if high concentration is inhaled and mechanical irritation or discomfort occurs. Seek medical attention if irritation persists.

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Ingestion	Unlikely to be toxic by ingestion.

Section V. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	None
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	No additional remark.
Special Remarks on Explosion Hazards	No additional remark.

Section VI. Accidental Release Measures

Small Spill	Put spilled solid in a waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and state regulations.
Large Spill	Use a shovel to put the material into a proper waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and state regulations. Be careful that the product is not present at a concentration level above TLV. Check Section XIII for disposal information.

Section VII. Handling and Storage

Handling and Storage Procedures	No special storage considerations. Handle in ways which minimize dust generation.

Section VIII. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limit. If local exhaust ventilation is used, a capture velocity of 150-200 fpm is recommended.
Personal Protection	Safety glasses. Any NIOSH approved filter dust respirator. No special skin protection is required. Wash skin if mechanical irritation is experienced.

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Section IX. Physical and Chemical Properties

Appearance	Solid. (Powdered solid.)
Molecular Weight	Not available.
pH	Not applicable.
Melting/ Sublimation Point	Not available.
Specific Gravity	2.8 (Water = 1)
Volatility	0% (v/v).
Odor	None.
Solubility	Insoluble in cold water.

Section X. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Not considered to be reactive.
Corrosivity	Not available.

Section XI. Toxicological Information

Routes of Entry	Inhalation. Ingestion.
Acute Effects	
Eye contact	Not a primary eye irritant. Dust may cause mechanical irritation.
Skin contact	Mechanical skin irritation is possible but unlikely. Not absorbed through skin. Possible granuloma formation in open wounds (requires repeated, massive applications).
Sensitization	Not a sensitizer.
Ingestion	This material is not expected to be an ingestion hazard based on animal testing.
Inhalation	Inhalation of high concentrations may cause mechanical irritation and discomfort. Repeated exposure may cause chronic effects.
Remarks	No additional remark.
Chronic Effects	**CARCINOGENIC EFFECTS**: See remarks. **MUTAGENIC EFFECTS**: Not available. **DEVELOPMENTAL TOXICITY**: Not available. **REPRODUCTIVE TOXICITY**: Not available.

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Remarks	PYROPHYLLITE: In the absence of crystalline silica, pyrophyllite can cause a low category pneumoconiosis (with little respiratory disability) in prolonged, high dust concentrations. KAOLIN: Published literature suggests that extremely high exposures to kaolin dust over a prolonged period of time can lead to a low category pneumoconiosis (with little respiratory disability) in a small number of workers. CRYSTALLINE SILICA: Overexposure to respirable crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. "Inhalable" crystalline silica (quartz) is listed by IARC as a Group I carcinogen (lung) based on "sufficient evidence" in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Some studies have not demonstrated a cancer association and considerable controversy exists concerning the IARC and NTP classification. Excessive exposure to any dust may aggravate pre-existing respiratory conditions. Repeated or prolonged exposure can produce damage to the lungs.

Section XII. Ecological Information

Ecotoxicity	None known.
BOD5 and COD	Not available.
Products of Biodegradation	None known.
Toxicity of the Products of Biodegradation	None known.
Special Remarks on the Products of Biodegradation	No additional remark.

Section XIII. Disposal Considerations

Waste Information	Not a US RCRA hazardous waste. Dispose of in accordance with state and local regulations.

Section XIV. Transport Information

DOT

Not a DOT controlled material (United States).

Not applicable.

Maritime Transportation

Not available.

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Section XV. Other Regulatory Information and Pictograms

TSCA

Listed.

Federal and State Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

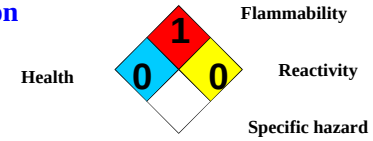
California Prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: quartz
Pennsylvania RTK: quartz: (generic environmental hazard)
Florida: quartz
Minnesota: quartz
Massachusetts RTK: quartz
New Jersey: quartz
TSCA 8(b) inventory: PYRAX® HS
SARA 302/304/311/312 hazardous chemicals: quartz
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: quartz: immediate health hazard, delayed health hazard

Hazardous Material Information System (U.S.A.)

Health Hazard	*	1
Fire Hazard		0
Reactivity		0
Personal Protection		a

* Chronic Potential

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



Protective Clothing (Pictograms)

Section XVI. Other Information

References

Not available.

Other Special Considerations

Not available.

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Verified by Sue Kelly.

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Information Contact

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Corporate Risk Management

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