Texas

Office: 281.941.9054 Fax: 281.941.4437

SILICA MSDS

SECTION 1: Chemical Product

Product Name or Number: PS-HB-32, PS-1400, PS-1400-V, PS-3600 and PS-1800 silica fabrics, and Silica Needled Mat high temperature insulation with nominal fiber diameter of 9 microns

Date of Preparation or Last Change: March 22, 2019

SECTION 2: Composition/Information on Ingredients

| Chemical Common Name | C.A.S Number | % by Weight | Exposure Guidelines |
|----------------------------|--------------|-------------|---|
| Amorphous Silica Fabric | 7631-86-9 | 96-99 | PEL: 6 mg/m³ (Total Dust) |
| | | | 3 mg/m ³ (Respiratory Fraction) |
| | | | |

TLV: 10 mg/m³ (Nuisance Dust)

SECTION 3: Health Hazard Identification

Primary Routes of Entry:

Eyes: Not a normal route of exposure. However, contact with airborne dust and particles may cause irritation, pain, and itching.

Skin: Prolonged contact with used material may cause reddening, itching, and inflammation

Ingestion: Not a normal route of exposure. However, ingestion in sufficient quantities may cause gastrointestinal tract irritation.

Inhalation: Not a normal route of exposure. However, inhalation of airborne dust and particles may cause transient irritation of the upper respiratory tract. Effects may include coughing, nasal congestion or sore throat.

Carcinogen Listings: IARC has determined that there is inadequate evidence for the carcinogenicity of glass filaments in humans and experimental animals (IARC Class –3).

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SECTION 4: First Aid Measures

Emergency/First Aid Procedures:

Eyes: Flush eyes with large amounts of water for 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention if irritation persists.

Skin: Wash gently with soap and water to remove dust and fibers.

Ingestion: Drink extra water to assist natural elimination. Seek medical attention if gastrointestinal irritation persists or other symptoms such as nausea, vomiting, or abdominal pain occur.

Inhalation: Move to fresh air. Drink water to clear throat and blow nose to remove fibers. Get medical attention if necessary.

SECTION 5: Fire-Fighting Measures

Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

Special Fire-Fighting Instructions: Not applicable

Flash Point: Not applicable

Flammability Limits: Not applicable

Lower Explosive Limit: Not determined

Upper Explosive Limit: Not determined

Auto Ignition Temperature: Not applicable

SECTION 6: Accidental Release Measures

Action to Take for Spills/Leaks: Not applicable

Notification Information:

There are no specific reporting requirements for release of this material as supplied under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendment Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements for the release of this material at the local, regional or state level.

SECTION 7: Handling and Storage

Handling and Storage Procedures:

No special handling or storage procedures required.

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SECTION 8: Exposure Control/Personal Protection

Engineering Control/Work Practices:

Ventilation: Control airborne concentrations below the exposure guidelines specified by the Occupational Safety and Health Administration (OSHA) or other local, state and federal regulations.

Personal Protective Equipment/Protective Measures:

Respiratory Protection: Respiratory protection is not normally necessary.

Protective Clothing: Protective clothing is not normally necessary.

Eye Protection: Eye protection is not normally necessary.

SECTION 9: Physical and Chemical Properties

Physical State: Solid

Color: White

Specific Gravity (Water=1): 2.10

Vapor Pressure: Not applicable

Vapor Density (Air=1): Not applicable

Melting Point: > 1,704.4°C (3,100°F)

Boiling Point: Not applicable

Evaporation Rate (Water=1): Not applicable

Percent Volatile by Volume: Not applicable

Solubility in Water: Not applicable

pH: Not applicable

SECTION 10: Stability and Reactivity

Stability: Stable under normal conditions of use.

Incompatibility: Incompatible with fluorine, oxygen difluoride, chlorine bifluoride and alkalies.

Hazardous Decomposition Products: Not applicable

Hazardous Polymerization: Not applicable

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SECTION 11: Disposal Consideration

Waste Disposal Method: The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

SECTION 12: Transportation Information

DOT Information:

Hazard Class: Not applicable

Proper Shipping Name: Not applicable

Labels Required: Not applicable

Placards Required: Not applicable

Bill of Lading Description: Product Name

UN/NA Code: Not applicable

SECTION 13: Regulatory Information

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory. All components of this product are listed on the Canadian Domestic Substances List (DSL).

The Canadian Workplace Hazardous Materials Information System (WHMIS) Other Toxic Effects category applies to this product.

SARA Title III Information: This product is not classified under the hazard categories of the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370).

SECTION 14: Other Applicable Information

Product which has been in service at elevated temperatures (greater than 1,800°F) may undergo partial conversion to cristobalite, a form of crystalline silica which, if inhaled in sufficient quantity, can cause severe respiratory disease ("Pneumoconiosis"). The amount of cristobalite present will depend on the temperature and length of service. Cristobalite (inhaled) is classified as carcinogenic to humans (IARC, Group 1).

The OSHA permissible exposure limit (PEL) for cristobalite is 0.05 mg/m³ as the respirable fraction of particulate matter. The ACGIH threshold limit value (TLV) for respirable quantities of cristobalite is 0.05 mg/m³.

NOTICE TO USERS: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Data Safety Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vender for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.