

**SDS Sheet****Product Name: Heatshield Armor™****Section 1: Product & Company Information****Product Name:** Heatshield Armor™**Chemical Name:** Vitreous Silicate & Aluminum**CAS Number:** 65997-17-3**Product Use:** Thermal Insulation**Manufacturer Information:**

Heatshield Products, Inc.

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**Section 2: Hazards Identification**

None present. This is not a hazardous material as defined in the OSHA Hazard Communication Standard

<b>NFPA Ratings:</b>	<b>Health:</b>	<b>1</b>	<b>Fire:</b>	<b>0</b>	<b>Reactivity:</b>	<b>0</b>	<b>Other:</b>	<b>0</b>
<b>HMIS Ratings:</b>	<b>Health:</b>	<b>1</b>	<b>Fire:</b>	<b>0</b>	<b>Reactivity:</b>	<b>0</b>	<b>Other:</b>	<b>0</b>

0 = Minimal Hazard    1 = Slight Hazard    2 = Moderate Hazard    3 = Serious Hazard    4 = Severe Hazard

**Potential Health Effects:**

**Acute Inhalation:** *Dust from this product may cause mechanical irritation of nose, throat and respiratory tract.*

**Skin Contact:** *Exposure to this product may cause temporary irritation to the skin. Itching and possible inflammation are a mechanical reaction to the fibers and are not damaging in the way that chemical irritants may be.*

**Eye Contact:** *Dust from this product may cause temporary mechanical irritation to the eyes.*

**Ingestion:** *Ingestion of this product is unlikely. However ingestion may produce gastro-intestinal irritation and disturbances.*

**Medical Conditions Aggravated by Exposure:** *Chronic respiratory or skin conditions will not improve and may worsen with exposure to this product.*

**Carcinogenicity:** NTP-n/a IARC-n/a OSHA-n/a

\*Categorized as not classifiable relative to human carcinogenicity

**Ingredient:** *Vitreous Silicate*

**IARC:** *Group 3, not classifiable as carcinogenic to humans*

**OSHA:** *Not listed*

**Ingredient:** *Fibrous Glass*

**IARC:** *Group 3, not classifiable as carcinogenic to humans*

**OSHA:** *Not listed*



## Section 3: Composition/Ingredient Information

CAS#	Component/Ingredient	Percent by Weight
65997-17-3	Vitreous Silicate	>75
65997-17-3	Continuous Filament Glass Fiber	<20
7429-90-5	Aluminum	<5

See Section 8 of this MSDS for exposure limit data for these ingredients

## Section 4: First Aid Measures

**Inhalation:** Remove from further exposure. If Cough or other symptoms develop, seek medical attention.

**Skin Contact:** If skin becomes irritated, do not rub or scratch. Wash the affected area with soap and water.

**Eye Contact:** If eyes become irritated, flush immediately with lukewarm water for 15 minutes.

**Ingestion:** Drink plenty of water to reduce irritation. If irritation persists, seek medical attention.

## Section 5: Fire Fighting Measures

<b>Is this product flammable?</b>	No	<b>Lower Flammability Limit</b>	Not Available
<b>Flash Point</b>	Not Applicable	<b>Flammability Classification</b>	Not Determined
<b>Upper Flammable Limit</b>	Not Applicable	<b>Explosion Data – Sensitivity to mechanical impact</b>	Not Available
<b>Auto Ignition Temperature</b>	None	<b>Explosion Data – Sensitivity to Static discharge</b>	Not Available
<b>Flash Point Method</b>	Not Applicable	<b>Hazardous Combustion Products Data</b>	Not Available

**General Fire Hazards:** There is no potential for fire or explosion.

**Extinguishing Media:** Dry chemical, foam, carbon dioxide, and water fog.

**Fire Fighting Instructions:** No special procedures necessary. Use normal fire-fighting procedures.

## Section 6: Actions on Inadvertent Release

**Containment Procedures:** Pick up any large pieces. Use high efficiency vacuum to clean up spilled material. Use wet sweeping where sweeping is necessary. Do not use compressed air for cleanup.

**Clean-Up Procedures:** Collect material and place in a suitable container for disposal as non-hazardous waste.



## Section 7: Handling and Storage

**General Storage:** Use good and safe workplace practices when handling this material.

**Handling:** Handling and use in a manner consistent with good industrial & manufacturing techniques and practices.

**Storage:** Store in un-opened containers under cool and dry conditions.

**Storage Temperature:** Not Determined

**Loading Temperature:** Not Applicable

## Section 8: Exposure Controls/ Personal Protection

**Engineering Controls:** If dust is generated, provide local exhaust ventilation to control airborne levels below ACGIH TLV-TWA exposure limit for Particulates Not Otherwise Classified of 10mg/m<sup>3</sup> for inhalable particles and 3mg/m<sup>3</sup> for respirable.

**Personal Protective Equipment:**

**Eyes and Face:** Wear safety glasses with side shields or goggles when handling this material.

**Skin:** Use appropriate workplace clothing and procedures when using this material

**Respiratory:** If airborne dust is present, use a NIOSH approved particulate respirator. (3M 8710)

**Comments** This product contains no known OSHA hazardous ingredients per 29 CFR 1910.1200

This specific type of vitreous silicate fibers are exonerated from classifications as carcinogen according to the International Agency of Cancer Research. Heatshield BioCool™ is classified group 3 (non-classifiable as a carcinogenic substance as per IARC).

## Section 9: Physical and Chemical Properties

<b>Appearance</b>	Off White	<b>Odor</b>	Odorless
<b>Physical State</b>	Fibrous	<b>pH in water</b>	7.75-8.00
<b>Vapor Density</b>	Not Applicable	<b>Melting Point</b>	>2179
<b>Vapor Pressure</b>	Not Applicable	<b>Freezing Point</b>	Not Applicable
<b>Specific Gravity</b>	> 1	<b>Solubility</b>	Nil
<b>Odor Threshold</b>	Not Applicable	<b>Boiling Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable	<b>Coefficient of Water/Oil Distribution</b>	Not Applicable

## Section 10: Chemical Stability & Reactivity Information

**Stability:** This is a stable material

**Reactivity:** Not reactive.

**Hazardous Decomposition:** Not applicable. Contains no organic compounds that would oxidize during decomposition.

**Incompatible Material:** None Expected

**Hazardous Polymerization:** Will not occur



## Section 11: Toxicological Information

### Acute Toxicity:

**A) General Product Information:** *Dusts may cause mechanical irritation to skin and eyes. Inhalation may cause coughing, nose and throat irritation or sneezing.*

### B) Component Analysis:

**Component Carcinogenicity:** *None known*

### Irritancy of the Product:

**Acute Inhalation:** *Dust from this product may cause mechanical irritation of the nose, throat and respiratory tract.*

**Skin Contact:** *Dust from this product may cause temporary irritation to the skin.*

**Eye Contact:** *Dust from this product may cause temporary mechanical irritation to the eyes.*

## Section 12: Ecological Information

*No ecological concerns can be identified with this product*

## Section 13: Disposal Considerations

### US EPA Waste Number and Descriptions:

**A) General Product Information:** *This product is not expected to be a characteristic waste under RCRA.*

**B) Component Waste Numbers:** *No EPA Numbers are applicable for this product's components.*

**Disposal Instructions:** *This product can be disposed of in a normal manner. Local regulations may apply.*

## Section 14: Transportation Information

### US DOT Regulations:

**Primary Hazard Class / Division:** *This product has no classification.*

**Other Shipping Information:** *Product should remain in a proper container during transportation.*



## Section 15: Regulatory Information

### US Federal Regulations:

**A) General Product Information:** *No additional information available*

**B) Component Analysis:** *None of the components of this product are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).*

### State Regulations:

**A) General Product Information:** *No Additional Information available.*

**B) Component Analysis – State:** *The Following Components appear on one or more of the state hazardous substance list:*

Component	CAS#	CA	FL	MA	MN	NJ	PA
Vitreous Silicate	65997-17-3	No	No	No	No	No	No
Fibrous Glass	65997-17-3	No	No	No	No	No	No

### Other Regulations:

**A) General Product Information:** *No additional Information available.*

**B) TSCA Status:** *This Product and its components are listed on the TSCA 8(b) inventory. None of the components listed on the TSCA Export Notification 12(b) list.*

### C) Component Analysis - Inventory

Component	CAS#	TSCA	DSL	ELNCS
Vitreous Silicate	65997-17-3	No	No	No
Fibrous Glass	65997-17-3	No	No	No

### D) Canada Workplace Hazardous Materials Information System (WHMIS)

*This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.*

## Section 16: Other Information

### **Epidemiological Studies:**

Large morbidity and mortality studies of both European and North American mineral wool manufacturing workers have been conducted with the traditional mineral wools.

The studies have found no significant evidence of non-malignant lung disease (e.g. fibrosis). The studies have not established a causal relationship between exposure to stone wool and malignant diseases (lung cancer or mesothelioma).

The new stone wool fibers are much more bio-soluble and will disappear even more rapidly than the traditional types.

### Disclaimer:

This data is offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.

