



MSDS Sheet

Product Name: Heatshield Armor

Section 1: Chemical Product

Chemical Name: *Vitreous Silicate*
CAS Number: 65997-17-3
Product Use: *Thermal Insulation*

Section 2: Composition/Ingredient Information

CAS#	Component/Ingredient	Percent by Weight
65997-17-3	Vitreous Silicate	>80
65997-17-3	Continuous Filament Glass Fiber	<20

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

Section 3: Hazards Identification

Appearance and Odor: Off white needled blanket/*No odor.*

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 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

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

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/m³ for inhalable particles and 3mg/m³ 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 BioBlanket™ is classified group 3 (non-classifiable as a carcinogenic substance as per IARC).

Section 9: Physical and Chemical Properties

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