SDS Number: AXSS-1 **Revised/Reviewed: 08/16/2018** **Revised From: 06/30/2016**

SECTION 1 ● PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME OR NUMBER:

- **ARMATEX®-SS** silicone coated and/or impregnated silica textile products (amorphous silica); cloth, tape, sleeving, rope, cordage, thread and mat. Note: Refer to Appendix A for more detailed product identification.
- **THERMOPAK®** custom fabricated products are made using one or more of the above listed products.

COMPANY:	Mid-Mountain Materials, Inc.		TELEPHONE:	206-762-7600
ADDRESS:	Office:	PO Box 800 2731 77th Ave. SE, Ste. 100 Mercer Island, WA 98040	EMERGENCY TELEPHONE NUMBER:	800-382-2208
			FAX:	206-762-7694
	Plant:	18825 67th Ave. NE Arlington, WA 98223		

SECTION 2 ● HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Not a normal route of exposure.

SKIN CONTACT: Prolonged skin contact with used material may produce temporary irritation in sensitive individuals.

ORAL INGESTION: Not a normal route of exposure.

INHALATION: Natural state: Not a normal route of exposure.

Used material: Proper care should be taken when working with used material to minimize generation of dust. A NIOSH/MSHA approved air-purifying respirator for particulates is generally acceptable, except that supplied air respirators are required for high airborne dust concentrations. An industrial hygienist or other qualified professional should be consulted during the respiratory selection process to assure that the respiratory protection used is appropriate under the conditions of use.

PRIMARY ROUTE(S) OF EXPOSURE: Skin contact.

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

SECTION 3 ● COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL / COMMON NAME	C.A.S. NUMBER	% BY WEIGHT (opt)
• Amorphous silica	7631-86-9	96-99 Composition consisting principally of oxides of silicon, boron, aluminum, calcium and magnesium fused in and amorphous vitreous state.
• Polysiloxanes (Silicone)(Cured)	63148-53-8	
• Zinc Borate	10192-46-8	Trace

See section 8 of SDS for data on exposure limits.

SECTION 4 ● FIRST-AID MEASURES

EMERGENCY/FIRST AID PROCEDURES

SKIN: Wash with mild soap and running water. Use a washcloth to remove fibers. Do not rub or scratch irritated areas. If irritation persists, seek medical attention.

EYE: In case of contact with airborne fibers released from used material, immediately wash eyes with large amounts of water for 15 minutes. If irritation persists, seek medical attention.

INHALATION: In case of overexposure to fibers released from used material, immediately remove person from contaminated area to fresh air. Get medical attention if necessary.

INGESTION: If ingested, seek medical attention. If gastrointestinal irritation or other symptoms such as nausea, vomiting, abdominal pain, or diarrhea is experienced, get medical attention.

SECTION 5 ● FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Will not burn. Use extinguishing agent suitable for type of surrounding area.

SPECIAL FIRE FIGHTING INSTRUCTIONS: N/A

SECTION 6 • ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: N/A

NOTIFICATION INFORMATION

There are no specific reporting requirements for release of this material as supplied under CERCLA (40 CFR 302) or SARA (40 CFR 355). There may be specific reporting requirements of the release of this material at the local, regional, or state level.

SECTION 7 • HANDLING AND STORAGE

HANDLING AND STORAGE PROCEDURES: No special handling and storage procedures required.

SECTION 8 • EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS/WORK PRACTICES

VENTILATION: Control airborne concentrations of dust and fibers below the exposure guidelines specified by OSHA or other local, state and federal regulations.

PERSONAL PROTECTIVE EQUIPMENT/PROTECTIVE MEASURES

RESPIRATORY PROTECTION: Some applications of these products may not require respiratory protection for fiberglass. However, if airborne fibrous glass concentrations exceed the OSHA permissible limits or if irritation occurs, use a properly fitted NIOSH approved N95 particulate filtering respirator, or better. Use respiratory protection in accordance with your company's respiratory protection program, local regulations, and OSHA regulations under CFR 1910.134.

An industrial hygienist or other qualified professional should be consulted during the respiratory selection process to assure that the respiratory protection used is appropriate under the conditions of use. A respiratory program that meets OSHA's 29 CFR 1910.34 requirements must be followed whenever workplace conditions warranty a respirator's use.

PROTECTIVE CLOTHING: Protective clothing is not normally necessary.

EYE PROTECTION: Eye protection is not normally necessary.

EXPOSURE GUIDELINES

INGREDIENT

- Amorphous silica fiber:
  - OSHA PEL: 6 mg/m^3 (total dust), 3 mg/m^3 (respiratory fraction)
  - ACGIH TLV: 10 mg/m^3 (nuisance dust)
- Polymer treatment:
  - OSHA PEL: NE
  - ACGIH TLV: NE

SECTION 9 • PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid.

COLOR AND ODOR: Various colors, see Appendix A. No odor.

pH: N/A

MELTING POINT: > 3100ºF (1704ºC)

BOILING POINT: N/A

FLASH POINT: N/A

EVAPORATIVE RATE (ethyl ether = 1): N/A

FLAMMABILITY LIMITS: N/A

LOWER EXPLOSIVE LIMIT: ND

UPPER EXPLOSIVE LIMIT: ND

VAPOR PRESSURE: (mmHg @ 20°C): N/A

% SOLUBILITY IN WATER: N/A

SPECIFIC GRAVITY (water = 1): 2.10

AUTO IGNITION TEMPERATURE: N/A

VISCOSITY: N/A

% VOLATILE BY VOLUME: N/A

POUR POINT: N/A

SECTION 10 • STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions of use.

INCOMPATIBILITY: Fluorine, oxygen difluoride, chlorine trifluoride, and alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition my be hazardous and may include carbon monoxide, carbon dioxide, and oxides of nitrogen.

HAZARDOUS POLYMERIZATION: N/A

SECTION 11 • TOXICOLOGICAL INFORMATION

Persons with pre-existing skin and respiratory disorders may be more susceptible to the effects from airborne fibers released from used material.

SECTION 12 • ECOLOGICAL INFORMATION

No information is available; however, toxicity is expected to be low based on the insolubility in water of the product

SECTION 13 • DISPOSAL CONSIDERATIONS

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 14 • TRANSPORT INFORMATION

UN/NA CODE: N/A

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

DOT INFORMATION: Not regulated.

LABELS REQUIRED: N/A

BILL OF LADING DESCRIPTION: Product name.

SECTION 15 • REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65: According to the Office of Environmental Health Hazard Assessment (OEHHA), "silica, crystalline (airborne particles of respirable size)" is listed as causing cancer. There is no listing for amorphous silica. While amorphous silica is not on the Prop 65 list, Mid-Mountain believes these fibers could behave similarly to special purpose, biopersistent, glass wool fibers; therefore, we are providing a Prop 65 warning.

TSCA: All components of this product are either listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA regulations.

CANADIAN DSL: All components in this product are on the Canadian Domestic Substance List or are exempt from listing.

CANADIAN WHMIS: Other toxic effects category apply to this product.

SARA TITLE III INFORMATION

This product may contain aluminum oxide (in excess of the applicable de minimis concentration) but as a manufactured article that does not release aluminum oxide under normal conditions of use. It is not subject to the annual toxic chemical release reporting requirements of SARA Section 313 (40 CFR 372).

SECTION 16 • OTHER APPLICABLE INFORMATION

Product that has been in service at elevated temperatures (greater than 1800ºF. May undergo partial transformation 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 upon the temperature and length of service.

The OSHA permissible limit for cristobalite is 0.05mg/m^3 as the respirable fraction of particulate matter. The ACGIH threshold limit value (TLV) for respirable quantities of cristobalite is 0.05mg/m^3. HMIS and NFPA Hazard Rating:

CATEGORY	HMIS	NFPA
Acute Health	1	1
Flammability	0	0
Reactivity	0	0

NFPA Unusual Hazards: None
HMIS Personal Protection: To be supplied by user depending upon use.

APPENDIX A

ARMATEX® silicone coated textile products are typically denoted SF, as in "ARMATEX® SF". In this specific product line, the ARMATEX® silicone coated products are also coated with ARMATEX® Q-Mix black refractory coating. The color of the silicone-coated side of a specific product is denoted by the insertion of a code letter between the S and the F. Typical color denotations are as follows:

A	Aluminum (gray)	B	Black
DG	Dark Gray	G	Gray
N	Green	O	Orange
OD	Olive Drab	P	Pink
R	Red	S	Salmon
U	Blue	Y	Yellow

The corresponding number(s) refer to thickness of material, weight of fabric, dimensions of rope, tape, sleeving, etc.

EXAMPLES:

• ARMATEX® SRS25 = **S**ilicone **R**ed (color) **S**ilica, **25** ounce per square yard (finished weight).

• ARMATEX® SBS45 = **S**ilicone **B**lack **S**ilica, **45** ounces per square yard (finished weight).

DEFINITIONS

29 CFR 1910.134 & 1926.103:
OSHA Respiratory Protection Standards
29 CFR 1910.1200 & 1926.59:
OSHA Hazard Communication

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Carriage of Dangerous Goods by Road (International Regulation)
CAA	Clean Air Act
CAS	Chemical Abstract Services
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
DOT	Department of Transportation
DSL	Domestic Substances List (Canada)
EEC	European Economic Committee
EINECS	European Inventory of Existing Commercial Chemical Substances
EPA	Environmental Protection Agency
EU	European Union
HEPA	High Efficiency Particulate Air
HMIS	Hazardous Materials Information System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal Concentration
LD	Lethal Dose
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PIN	Product Identification Number
PNOC	Particulates Not Otherwise Classified
PNOR	Particulates Not Otherwise Regulated
RCRA	Resource Conservation and Recovery Act
RID	Carriage of Dangerous Goods by Rail (International Regulation)
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TCLP	Toxic Chemical Leachate Program
TDG	Transportation of Dangerous Goods

TITLE III EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT – SECTION:

302	Extremely Hazardous Substances
303	Emergency Release
311	SDS/List of Chemicals
312	Emergency and Hazardous Inventory
313	Toxic Chemicals Release Reporting

TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System

µm	micrometer (micron)
mm	millimeter
cm	centimeter
m	meter
f/cc	fibers per cubic centimeter
in	inch
oz	ounce
lb	pound
µg	microgram
mg	milligram
g	gram
kg	kilogram
mg/m^3	milligrams per cubic meter of air
mppcf	million particles per cubic foot
ppm	parts per million

N/A	Not Applicable
ND	No Data/Not Determined
NE	Not Established
NR	Not Regulated

To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy or completeness of such information. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible long-term adverse effects. To the extent that any hazards may have been mentioned in the publication, we neither suggest nor guarantee that such hazards are the only ones that exist. Final determination of the suitability of any information or product for the use contemplated by any user, the manner of that use, and whether there is any infringement of any patents is the sole responsibility of the user. We recommend that anyone intending to rely on any recommendation or to use any equipment, processing technique, or material mentioned in this publication should satisfy himself as to such suitability and that he can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturers' or suppliers' current instruction for handling each material they use.

<<< End of SDS >>