SAFETY DATA SHEET **Part No.: 4000 B**

Date: November 7, 2019

PRODUCT NAME(S): Xtreme 4000 Hardener - Part B

SECTION 1 – IDENTIFICATION

Manufacturer's Info:
Fortress Stabilization Systems, LLC
184 West 64th Street
Holland, MI 49423

Information phone: (800) 207 6204
Emergency contact: CHEMTEL (813) 248 0585

Product Name: **Xtreme 4000 Hardener - Part B**

Chemical Name: Epoxy Hardener

SECTION 2 – HAZARD(S) IDENTIFICATION

OSHA Hazard Communication Standard:
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS-Label Elements: **Signal Word:** DANGER

Pictogram(s):

GHS 05 GHS 08 GHS 07 GHS 09

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute Toxicity, Oral	4	H302	Harmful if swallowed
Acute Toxicity, Dermal	4	H312	Harmful in contact with skin
Skin Corrosion/Irritation	1	H314	Causes severe skin burns and eye damage
Respiratory Sensitization	1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Sensitization	1	H317	May cause an allergic skin reaction
Serious Eye Damage/Eye Irritation	1	H318	Causes serious eye damage
Acute Aquatic Toxicity	2	H401	Harmful to aquatic life
Chronic Aquatic Toxicity	2	H411	Harmful to aquatic life with long lasting effects

Precautionary Statements:

Prevention:	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe dusts/fumes/gas/mist/vapors/spray.
	P264	Wash exposed area with plenty of water and soap thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P301+P330+P331	**IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
	P303+P361+P353	**IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304+P340	**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P305+P351+P338	**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
	P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
	P363	Wash contaminated clothing before reuse.
	P391	Collect spillage.
Storage:	P405	Store locked up.
Disposal:	P501	Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Tetraethylenepentamine	112-57-2	203-986-2	40 – 50
Isophorone diamine	2855-13-2	220-666-8	10 – 20
Confidential Component #1	Proprietary	Proprietary	5 – 10
Bisphenol A-epichlorohydrin expoxy resin	25068-38-6	500-033-5	5 – 10
Confidential Component #2	Proprietary	Proprietary	10 – 15
Calcium carbonate	471-34-1	207-439-9	1 – 5
Silicon dioxide	112945-52-5	601-216-3	1 – 5
Glass Fiber	65997-17-3	266-046-0	1 – 5

SECTION 4 – FIRST-AID MEASURES

Description of First Aid measures:

Inhalation: Move to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory problems, seek immediate medical attention.

Skin: Wash material off of the skin with plenty of soap and water for at least 15-20 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. Get medical advice/attention if irritation occurs. Can cause allergic reaction in sensitive individuals.

Eye: Can cause severe or permanent eye damage/disease. Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 to 60 minutes. Do not rub eyes in order to prevent corneal injury. Get medical advice/attention if eye irritation persists.

Ingestion: Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. Rinse mouth thoroughly with water and then give 60 to 240 mL (2 to 8 oz) of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the person is unconscious or having convulsions.

Most important symptoms/effects, acute and delayed: Repeated and/or prolonged exposure can result In adverse skin effects (such as rash, irritation, allergies or corrosion). Adverse eye effects (such as conjunctivitis or corneal damage), eye disease. See Section 11 for more details.

General advice for First Aid responders: No action should be taken involving any personal risk or without suitable training. If potential for exposure exist refer to Section 8 for specific personal protective equipment. Show this SDS to physician.

Note to physician: Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Recommended medical monitoring for at least 24hours.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire: Alcohol-resistant foam, Carbon dioxide (CO2), Dry Chemical, water fog, foam, Dry sand, or Limestone powder.

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: This product is non-flammable and non-combustible. Containers at risk from fire should be cooled with water spray and, if possible, removed from the danger area. Hazardous combustion products: carbon monoxide, ammonia gas, and nitrogen oxide gases (Section 3).

Special Protective Equipment and Precautions for fire fighters: Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

Further Information: Do not allow run-off from fire-fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary and unprotected personnel from entering. Ensure adequate ventilation/exhaust extraction. Use protective equipment as described in Section 8. Do not touch or walk through spilled material; spilled material may cause a slipping hazard.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution. See Section 12 for more details.

Methods and materials for containment and cleaning up: Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth). Following absorption, transfer into properly labeled chemical waste containers. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Wash the spill site with soap and water. Cover container and remove from work to a well ventilated area. Properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations.
For major spills: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Contain spillages and collect with an absorbent material as described in the previous paragraph.
For minor spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly with soap and water to remove residual contamination. Neutralize with very dilute acid, if necessary.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Do not breathe vapors and mists or ingest. Avoid contact with skin and eyes. Wear appropriate respiratory, eye and skin protection. Wash hands thoroughly after handling. Do not use sodium nitrate or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Do not store in reactive metal containers.

Conditions for safe storage, including any incompatibilities: Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10 for details), food and drink. Keep container tightly closed and sealed until ready for use. Avoid using electric band heaters. Containers that have been opened must be carefully resealed. Protect from freezing. Keep out of the reach of children. Do not store near acids.

Storage stability: Stable under normal conditions.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use.
See Section 8 for additional information on hygiene measures.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits (OEL):

Component	CAS-No.	Value	Control parameters	Basis
Tetraethylenepentamine	112-57-2	TWA	5.000000 ppm	USA. ACGIH Threshold Limit Values (WEEL)
	Remarks	Skin: Dermal Sensitization Notation		
Epichlorohydrin	106-89-8	TWA	0.500000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation Male reproductive Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption		
		Potential Occupational Carcinogen		
		TWA	5.000000 ppm 19.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		Skin designation The value in mg/m3 is approximate.		
		PEL	0.05 ppm 0.19 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin designation (The value in mg/m3 is approximate)		

Appropriate engineering controls: Good local and general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

Personal protective equipment:

Eye/face protection:

When directly handling the product, eye protection is required. Examples of eye protection include safety glasses with side shields or chemical goggles. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Impervious, waterproof, abrasion and alkali-resistant gloves should be worn always when working with this product. Do not rely on barrier creams in place of impervious gloves. Do not get product inside gloves.

Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH. Remove clothing and protective equipment that becomes saturated with the product and immediately wash exposed areas of the body. Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved.

Respiratory protection:

Use properly fitted, vapor/particulate filter or air feed/supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor of the selected respirator.

Additional Protective Measures: Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Clean water should always be readily available for emergency skin and eye washing. Use administrative controls such job rotation to supplement engineering controls. Emergency eyewash fountains and safety shower should be in close proximity as a matter of good practice.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber Liquid
Odor:	Amine-like
Odor threshold:	Not available for mix
pH:	Alkaline
Melting point/ freezing point:	Not available for mix / not available for mix
Initial boiling point and boiling range:	>200°C (392°F)
Flash point:	>120°C (248°F)
Evaporation rate:	Not available for mix
Flammability (solid, gas):	Not available for mix
Upper/ lower flammability or explosive limits:	Not available for mix
Vapor pressure:	No Data Available
Vapor density:	Not available for mix
Specific Gravity:	Not available for mix
Solubility (water):	Not available for mix
Partition coefficient n-octanol/water:	Not available for mix
Auto-ignition temperature:	Not available for mix
Decomposition temperature:	Not available for mix
Viscosity:	Not available for mix

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization. Based on its structural properties the product is not classified as oxidizing.

Chemical stability: Stable under recommended storage conditions.

Conditions to avoid: Do not freeze. To avoid thermal decomposition, do not overheat. Avoid prolonged exposure above 250°C. Potentially violent decomposition can occur above 350°C.

Incompatible materials: N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Nitrous acid and other nitosating agents, organic acids (i.e. acetic acid, citric acid etc.), Mineral acids, Oxidizing agents and Sodium hypochlorite, Halogenated compounds and amines. Products slowly corrodes copper, aluminum, zinc, and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide, possibly creating an explosion. Exothermic reaction.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to Nitric Acid, Ammonia, Nitrogen Oxides, Nitrogen oxide can react with water vapors to form corrosive nitric acid, carbon monoxide, Carbon dioxide, or Nitrosamine (Section 3).

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin and Eye Contact, Inhalation and Ingestion.

Symptoms of exposure:

Acute toxicity:

Oral:

Harmful if swallowed. Can cause severe burns of the mouth and throat, as well as danger of perforation of the esophagus and the stomach.

Dermal:

Corrosive! Can cause severe skin burns and eye damage.

Inhalation:

Can cause severe eye, skin, and respiratory tract burns.

Serious eye damage / eye irritation:

Corrosive! Can cause serious eye damage.

Specific target organ toxicity, single exposure:

Not classified.

Aspiration hazard:

No data available.

Chronic toxicity:

Respiratory and Skin Sensitizer:

This product contains components that are classified as a respiratory or skin sensitizer:

- Tetraethylenepetamine – CAS # 112-57-2 (respiratory)
- Isophorone diamine – CAS # 2855-13-2 (skin)
- Confidential Component #2 – CAS # Proprietary (skin)
- Bisphenol A-epichlorohydrin expoxy resin – CAS # 25068-38-6 (skin)

Germ cell mutagenicity:

No data available on mix.

Carcinogenicity:

Not classified.

Reproductive toxicity:

This product contains a

Specific target organ toxicity, repeated exposure:

No test data available.

Medical conditions aggravated by overexposure:

In some cases this could result in skin/tissue burns or sensitization.

Toxicity test results: Not available for mixture. Results for components, when available:

Components	Test Results
Tetraethylenepentamine CAS # 112-57-2	Acute Toxicity Oral LD50: 3,990 mg/kg (Rat) Skin corrosion/irritation: Corrosive to skin (Rabbit) Serious eye damage/eye irritation: No test data available. Chronic Toxicity Sensitization: No test data available. Carcinogenicity: No test data available. STOT-SE: Not classified. STOT-RE: Not classified. **Additional Information:** RTECS: KH8585000 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea.
Isophorone diamine CAS # 2855-13-2	Acute Toxicity Oral LD50: 1,030 mg/kg (Rat, OECD Guideline 401) Skin corrosion/irritation LD50: > 2,000 mg/kg (Rat, OECD guideline 402) Corrosive, damages eyes and skin. Inhalation LC50: > 5.01 mg/l, 4 hl (Rat, OECD Guideline 403) Serious eye damage/eye irritation: risk of serious damage to eyes (Rabbit, OECD Guideline 405) Chronic Toxicity Repeated dose: Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies. Sensitization: sensitization after skin contact possible (Guinea pig, OECD Guideline 406) Carcinogenicity: Study not scientifically justified. STOT-SE: No data available STOT-RE: The substance is not classified as specific target organ toxicant, repeated exposure.

Confidential Component #1 CAS # Proprietary	Acute Toxicity Oral LD50: >2,000 mg/kg (Rat) Dermal LD50: >2,0000 mg/kg (Rabbit) Inhalation: No data available Skin corrosion/irritation: Moderate skin irritation. Serious eye damage/eye irritation: Moderate eye irritation. Chronic Toxicity Sensitization: May cause sensitization by skin contact. Carcinogenicity: No data available
Bisphenol A-epichlorohydrin epoxy resin CAS # 25068-38-6	Acute Toxicity Oral LD50: >15,000 mg/kg (Rat) Skin corrosion/irritation LD50: >23, 000 mg/kg (rabbit) Inhalation: At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation. LC50 has not been determined. Serious eye damage/eye irritation: can cause moderate eye irritation. Corneal injury is unlikely Chronic Toxicity Sensitization: Has caused allergic skin reaction in humans. Has demonstrated the potential for contact allergy in mice. Carcinogenicity: IARC does not list this as carcinogenic.
Confidential Component #2 CAS # Proprietary	Acute Toxicity Oral LD50: 15.4 g/kg (Rat) Dermal LD50: 3 g/kg (Rabbit) Inhalation: No data available Skin corrosion/irritation: Moderate irritant. Causes reddening and swelling of the skin – Draize Score 3.6 Serious eye damage/eye irritation: Slight irritant. When instilled in the eye of rabbits, product causes some transitory irritation to the iris and conjunctiva lasting through 48 hours. Chronic Toxicity Respiratory or Skin Sensitizer: Strong sensitizer (Guinea pig) – OECD 406 Germ cell mutagenicity: Not classified. Reproductive: No data available Carcinogenicity: Not classified. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA. STOT-SE: Not classified. STOT-RE: Not classified.
Calcium carbonate CAS # 471-34-1	No data available on the product itself.
Silicon dioxide CAS # 112945-52-5	Acute Toxicity Oral LD50: >5,000 mg/kg (Rat) – OECD 401 Inhalation LC50: 0/139 mg/l / 4 h (Rat) – maximum concentration attainable in experiments Skin corrosion/irritation LD50: >5,000 mg/kg / Not irritating (Rabbit) – literature value Serious eye damage/eye irritation: Not irritating (Rabbit) – literature value Chronic Toxicity Sensitization: Not known Germ cell mutagenicity: No evidence of mutagenic effects. Carcinogenicity: Contains no carcinogenic substances as defined by NTP, IARC and /or OSHA.
Glass Fiber CAS # 65997-17-3	Acute Toxicity General Product Information: Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. People with pre-existing respiratory conditions, may experience difficulty breathing, congestion and chest tightness. Chronic Toxicity Carcinogenicity: ACGIH: A4 – Not classifiable as a human carcinogen. IARC: Group 3 “not classifiable as to its carcinogenicity to humans” The International Agency for Research on Cancer (IARC) in June 1987, categorized fiberglass continuous filament as not classifiable with respect to human carcinogenicity (Group 3). The evidence from human as well as animal studies was evaluated by IARC as insufficient to classify fiberglass continuous filament as a possible, probable, or confirmed cancer causing material. This conclusion was confirmed by IARC in October 2001. The American Conference of Governmental Industrial Hygienists (ACGIH) A4 classification, not classifiable as a human carcinogen, for Respirable continuous filament glass fibers is based on inadequate data in terms of its carcinogenicity in humans and/or animals. For Respirable continuous filament glass fibers, a TLV-TWA of 1 fiber/cc was adopted to protect workers against mechanical irritation. The TLV-TWA of 5 mg/m3 was adopted for nonrespirable glass filament fiber, measured as inhalable dust, to prevent mechanical irritation of the upper respiratory tract. **Note: There are no known chronic health effects connected with long term use or contact with these products.** Products that are chopped, crushed or severely mechanically processed during manufacture or use may contain a very small amount of Respirable glass fiber-like fragments. Persistent Respirable glass fibers are suspected to cause cancer. NIOSH defines “Respirable fibers “ as greater than 5 microns in length and less than 3 microns in diameter with an aspect ratio of > 5:1(length-to-width ratio).

The products in question have been evaluated against the Hazardous Products Regulations (WHMIS 2015) and no additional classifications, ingredient disclosure or exposure limits are required for those regulations.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Do not allow to enter soil, waterways or wastewater canal. Toxic to aquatic life with long lasting effects.

Persistence and degradability:

Not readily biodegradable by OECD criteria.

Bioaccumulative potential:

Not known.

Mobility in soil:

Not known.

Other adverse effects:

Not known.

Ecotoxicity test results: Not available for the mixture. Results for individual components listed below:

Components	Test Results
Tetraethylenepentamine CAS # 112-57-2	Aquatic Toxicity Fish EC50: 420 mg/l – 96 h (Poecilia reticulate) Invertebrates EC50: 24 mg/l – 48 h (Daphnia magna) Algae/aquatic plants IC50: 2 mg/l – 72 h (Pseudokirchneriella subcapitata) Ecological Data: Biodegradation: No data available on this product itself. Bioaccumulation potential: No data available. Mobility in soil: No data available. Other Adverse Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Isophorone diamine, CAS # 2855-13-2	Aquatic Toxicity Fish LC50: 110 mg/l, (96 h), Leuciscus idus Microorganisms, EC10 (18 h) 1,120 mg/l Algae/aquatic plants: EC50 (72 h) >50 mg/l (growth rate) Ecological Data Biodegradation: Not readily biodegradable (by OECD criteria). Bioaccumulation potential: Because of n-octano/water distribution co-efficient (log Pow) accumulation in organisms is to be expected. Literature data. Mobility in soil: Adsorption to solid soil phase is not expected.
Confidential Component #1 CAS # Proprietary	Aquatic Toxicity Fish EC50: No data available Bacteria, EC50: No data available. Algae/aquatic plants: No data available on this product itself. Ecological Data: Biodegradation: No data available on this product itself. Bioaccumulation potential: No data available. Mobility in soil: No data available.
Bisphenol A-epichlorohydrin epoxy resin CAS # 25068-38-6	Aquatic Toxicity Fish LC50 (rainbow trout), 96h: 2 mg/L. Bacteria LC50: , >42.6 mg/l, bacteria, 18h, Respiration rates Algae/aquatic plants: , 11mg/l, 72h, Growth rate inhibition Ecological Data: Biodegradation: 12%, 28d (OECD test Guideline 302B or equivalent), Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable. Bioaccumulation potential: moderate (BCF between 100-300)0 Mobility in soil: Low potential, Koc 500-2000
Confidential Component #2 CAS # Proprietary	Aquatic Toxicity Fish EC50: No data available Invertebrates EC50: > 1,000 mg/L, 48 h – OECD 202 Algae/aquatic plants: > 1,000, 72 h – OECD 201 Ecological Data: Biodegradation: Not readily biodegradable. Bioaccumulation potential: No data available. Mobility in soil: No data available.
Calcium carbonate CAS # 471-34-1	Chronic Toxicity to fish: No toxicity at the limit of solubility. Biodegradation: The methods for determining biodegradability are not applicable to inorganic substances. Bioaccumulation potential: Not expected. Mobility in soil: Low solubility and mobility.
Silicon dioxide CAS # 112945-52-5	Aquatic Toxicity Fish LC50 (Brachydanio rerio): >10,000 mg/l / 96 h (OECD 203) Invertebrate EC50: 1,000 mg/L , 24h (Daphnia Magna) (OECD 202) Acute toxicity to Algae/aquatic plants: No data found Ecological Data: Biodegradation: Methods for determining biodegradability are not applicable to inorganic substances. Bioaccumulation potential: Not to be expected Mobility in soil: No remarkable mobility in soil is to be expected.
Glass Fiber CAS # 65997-17-3	No data available for this product. Not anticipated to harm animals, plants or fish.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do NOT discharge into sewer system. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor.

Container disposal: Even after emptying, container may retain residues. Containers should be completely emptied and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulation.
This material and its container must be disposed of in a safe way.

SECTION 14 – TRANSPORT INFORMATION

	Land transport, U.S. DOT	Sea transport, IMDG:	Air transport, IATA/ICAO:
UN number:	UN 2320	UN 2320	UN 2320
UN proper shipping name:	TETRAETHYLENEPENTAMINE	TETRAETHYLENEPENTAMINE	TETRAETHYLENEPENTAMINE
Transport hazard class(es):	8	8	8
Packing group:	III	III	III
Hazard label:	8	8	8
Other information:	Marine Pollutant: Yes Poison Inhalation Hazard: No	Marine Pollutant: Yes EMS-No: F-A, S-B	Marine Pollutant: Yes

SECTION 15 – REGULATORY INFORMATION

U.S. Regulations:
OSHA HCS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.
TSCA Regulations:
All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.
EPCRA Section 302 (40 CFR Part 355) (Emergency Response Planning, Extremely Hazardous Substance):
No components are subject to the reporting.
EPCRA Section 304 (40 CFR Part 355) (Emergency Release Notification Requirements):
No components are subject to the reporting.
EPCRA Sections 311 & 312 (Hazardous Chemical Inventory Reporting, Hazard Categories):
- Acute Health Hazard
- Chronic Health Hazard

EPCRA Section 313 (40 CFR Part 372) (Toxic Chemical Release Inventory Reporting):
No components are subject to the reporting
CERCLA Sections 102-103 (40 CFR Part 302) (Hazardous Substances Release Notification):
No components are subject to the reporting.
Clean Air Act:
- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.
- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1 and Table Z-3: See Section 8.

Clean Water Act:
- Section 307(a) (Toxic pollutants): No components are listed.
- Section 311(b)(2): Table 116.4A (Hazardous chemicals) / Table 117.3 (RQ): No components are listed.

NFPA rating: Health: 3 Fire: 1 Reactivity: 0 Special: 0
HMIS rating: Health: 3 Flammability: 1 Physical hazard: 0
Rating: 0 – Minimal | 1 – Slight | 2 – Moderate | 3 – Serious – 4 – Severe

State Regulations:
California Prop. 65 Components:

WARNING: This product can expose you to chemicals including Epichlorodydrin, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

WARNING: This product can expose you to chemicals including Epichlorohydrin, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov

Massachusetts New Jersey or Pennsylvania Right to Know Substance Lists:

- Tetraethylenepentamine – CAS # 112-57-2
- Isophorone diamine CAS # 2855-13-2
- Epichlorohydrin – CAS# 106-89-8

Canada regulations/legislation:
This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

International Regulations/Inventories:
No data available.

SECTION 16 – OTHER INFORMATION

LEGEND	
GHS	Globally Harmonized System
CAS	Chemical Abstracts Services
EC	European Community
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average
STEL	Short-term exposure limit
HEPA	High Efficiency Particulate Air
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
STOT, SE	Specific Target Organ Toxicity following Single Exposure
STOT, RE	Specific Target Organ Toxicity following Repeated Exposure
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
TSCA	Toxic Substances Control Act
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
RQ	Reportable Quantity
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

Latest revision date: November 7, 2019
Date of the previous revision: July 7, 2015

Disclaimer: The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. **Fortress Stabilization Systems, LLC** makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.