



SAFETY DATA SHEET

SDS No. M0398

Effective Date: 01/16/2018

1. IDENTIFICATION

- (a) Product identifier used on the label **FOAMFRAX™ RG BINDER**
- (b) Other means of identification **AMORPHOUS SILICA, COLLOIDAL SILICA DISPERSION**
- (c) Recommended use of the chemical and restrictions on use For use as a component of the Foamfrax insulation system. Intended for industrial use.
- (d) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party **Unifrax I LLC**
600 Riverwalk Parkway, Suite 120
Tonawanda, NY 14150
- Product Stewardship Information Hotline**
1-800-322-2293 (Monday - Friday 8:00 a.m. - 4:30 p.m. EST)
- For additional SDSs, visit our web page, <http://www.unifrax.com>, or call Unifrax Customer Service at (716) 768-6500**
- (e) Emergency phone number CHEMTREC will provide assistance for chemical emergencies. Call **1-800-424-9300**

2. HAZARDS IDENTIFICATION

- (a) Classification of the chemical in accordance with paragraph (d) of §1910.1200
NOT CLASSIFIED
- (b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200.
NOT APPLICABLE
- (c) Hazards not otherwise classified that have been identified during the classification process

Inhalation of mist or dust may be harmful. Avoid repeated or prolonged breathing of spray mist or dusts. Keep container closed when not in use. Use with adequate ventilation.
Mild irritation to skin, eyes and upper respiratory system may result from exposure. These effects are usually temporary.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>
Water	7732-18-5	60-80
Silica (amorphous)	7631-86-9	20-40

(See Section 8 "Exposure Controls / Personal Protection" for exposure guidelines)

4. FIRST AID MEASURES

(a) Description of necessary measures & (b) Most important symptoms/effects, acute and delayed.

EYE IRRITATION:

If eyes become irritated, flush immediately with large amounts of lukewarm water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Do not rub eyes. Get medical attention if irritation persists.

SKIN IRRITATION:

If skin becomes irritated, rinse with large amounts of lukewarm water for at least 15 minutes. Get medical attention if irritation persists.

RESPIRATORY TRACT (nose & throat) IRRITATION:

If respiratory tract irritation develops, move the person to a dust free location. Get medical attention if the irritation continues. See Section 8 for additional measures to reduce or eliminate exposure.

(c) Indication of immediate medical attention and special treatment needed, if necessary.

Based on the individual's reactions, the physician's judgment should be used to control symptoms and clinical condition.

5. FIRE FIGHTING MEASURES

(a) Suitable (and unsuitable) extinguishing media.

Use extinguishing media suitable for type of surrounding fire.

(b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).

None

(c) Special protective equipment and precautions for fire-fighters.

None.

6. ACCIDENTAL RELEASE MEASURES

(a) Personal precautions, protective equipment, and emergency procedures.

Use impermeable gloves and chemical splash goggles when handling product.

(b) Methods and materials for containment and cleaning up.

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal.

7. HANDLING AND STORAGE

(a) Precautions for safe handling.

Avoid contact with skin, eyes, and clothing. Keep container closed when not in use.

(b) Conditions for safe storage, including any incompatibilities.

Product packaging may contain residue. Do not reuse.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

a. EXPOSURE GUIDELINES

COMPONENTS	ACGIH TLV	OSHA PEL	MANUFACTURER REG
Water Silica (amorphous)	ACGIH TLVs (TWAs): Water -- None established. Silica (amorphous) -- 10 mg/m ³ .	None established. 20 mppcf or 80 mg/m ³ / % SiO ₂	None established None established

PERSONAL PROTECTION EQUIPMENT

Respiratory Protection:

Respiratory protection is not normally needed since the volatility and toxicity are low. If significant mists or aerosols are generated, respiratory protection, pursuant to the requirements of OSHA Standards 29 CFR 1910.134 and 29 CFR 1926.103, is recommended.

b. Engineering Controls

Ventilation:

General ventilation is recommended.

c. Personal Protective Equipment:

Use impermeable gloves and chemical splash goggles when attaching feeding equipment, doing maintenance or handling product.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is soiled, remove clothing and thoroughly wash the affected area. Launder soiled clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Blue liquid	Upper/lower flammability or explosive limits	Not applicable
Odor	Slight ammonia odor	Vapor pressure	Not applicable
Odor threshold	Not applicable	Vapor density	Not applicable
pH	9.1 - 9.5	Relative density	1.29-1.30 @ 77 ⁰ F ASTM D-1298
Melting point	1760° C (3200° F)	Solubility	Insoluble
Initial boiling point and boiling range	212 ⁰ F @ 760 mm Hg ASTM D-86	Partition coefficient: n-octanol/water	Not applicable
Flash point	Not applicable	Auto-ignition temperature	Not applicable
Evaporation rate	Not applicable	Decomposition temperature	Not applicable
Flammability	Not applicable	Viscosity	30 cps maximum

10. STABILITY AND REACTIVITY

(a) Reactivity

Not applicable.

(b) Chemical stability;

Stable under conditions of normal use.

(c) Possibility of hazardous reactions

Not applicable

(d) Conditions to avoid

Avoid contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) which can generate heat, splattering or boiling and the release of toxic fumes.

(e) Incompatible materials

Avoid contact with aluminum.

(f) Hazardous decomposition products.

None

11. TOXICOLOGICAL INFORMATION

The International Agency for Research on Cancer (IARC), has concluded that amorphous silica is "not classifiable as to its carcinogenicity to humans (Group 3)" based on "inadequate evidence in humans for the carcinogenicity of amorphous silica" and "inadequate evidence in experimental animals for the carcinogenicity of synthetic amorphous silica" (IARC Monograph 68, June 1997, p. 210-211).

EPIDEMIOLOGY:

IARC noted that "very little epidemiological evidence was available" for amorphous silica. In evaluating the results of three community-based case-control studies, IARC concluded that "no association was detected for mesothelioma with biogenic amorphous silica fibres." (IARC Monograph 68, June 1997, p. 208).

TOXICOLOGY:

A food-grade micronized synthetic amorphous silica was tested by oral administration to mice and rats. No increased incidence of tumors was seen. In another study in rats, using intrapleural implantation of two different preparations of synthetic amorphous silica, no increased incidence of tumors were observed (IARC Monograph 68, June 1997, p. 209).

To obtain more health and safety related information, please call the toll free telephone number for the Unifrax I LLC Product Stewardship Program found in Section 16 - Other Information.

HAZARD CLASSIFICATION

The International Agency for Research on Cancer (IARC) has classified amorphous silica as a Group 3 substance, not classifiable as to its carcinogenicity to humans.

The Hazardous Materials Identification System (HMIS) .

Health 1 Flammability 0 Reactivity 0 Personal Protection Index: B

12. ECOLOGICAL INFORMATION

No ecological concerns have been identified.

13. DISPOSAL CONSIDERATIONS

DISPOSAL

This product, as manufactured, is not classified as a hazardous waste according to Federal regulations (40 CFR

261). Any processing, use, alteration or chemical additions to the product, as purchased, may alter the disposal requirements. Under Federal regulations, it is the waste generator's responsibility to properly characterize a waste material, to determine if it is a "hazardous" waste. Check local, regional, state or provincial regulations to identify all applicable disposal requirements.

As a non-hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains prior to disposal.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

Hazard Class:	Not Regulated	United Nations (UN) Number:	Not Applicable
Labels:	Not Applicable	North America (NA) Number:	Not Applicable
Placards:	Not Applicable	Bill of Lading:	Product Name

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS

EPA: **Superfund Amendments and Reauthorization Act (SARA)** Title III - This product does not contain any substances reportable under Sections 302, 304, 313, (40 CFR 372). Sections 311 and 312 apply.
Toxic Substances Control Act (TSCA) - All substances in this product are listed, as required, on the TSCA inventory.
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) -- Notification of spills of this product is not required.
Clean Air Act -- This product does not contain ingredients covered by the Act.

OSHA: Comply with **Hazard Communication Standards** 29 CFR 1910.1200 and 29 CFR 1926.59 and the **Respiratory Protection Standards** 29 CFR 1910.134 and 29 CFR 1926.103.

States: This product is not known to be regulated by any state; however, state and local OSHA and EPA regulations may apply to these products. If in doubt, contact your local regulatory agency.

INTERNATIONAL REGULATIONS

Canada: **Canadian Environmental Protection Act (CEPA)** - All substances in this product are listed, as required, on the Domestic Substance List (DSL)

16. OTHER INFORMATION

PRODUCT STEWARDSHIP PROGRAM

Unifrax I LLC has established a program to provide customers with up-to-date information regarding the proper use and handling of this product. If you would like more information, please call the Unifrax I LLC Product Stewardship Information Hotline at 1-800-322-2293.

DEFINITIONS

ACGIH:	American Conference of Governmental Industrial Hygienists
CAA:	Clean Air Act
CAS:	Chemical Abstracts Service
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act
DSL:	Domestic Substances List
EPA:	Environmental Protection Agency
EU:	European Union
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
mg/m³:	Milligrams per cubic meter of air
mmpcf:	Million particles per cubic meter
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
OSHA:	Occupational Safety and Health Administration
29 CFR 1910.134 & 1926.103:	OSHA Respiratory Protection Standards
29 CFR 1910.1200 & 1926.59:	OSHA Hazard Communication Standards
PEL:	Permissible Exposure Limit (OSHA)
PIN:	Product Identification Number
PNOC:	Particulates Not Otherwise Classified
PNOR:	Particulates Not Otherwise Regulated
PSP:	Product Stewardship Program
RCRA:	Resource Conservation and Recovery Act
REL:	Recommended Exposure Limit (NIOSH)
RID:	Carriage of Dangerous Goods by Rail (International Regulations)
SARA:	Superfund Amendments and Reauthorization Act
SARA Title III:	Emergency Planning and Community Right to Know Act
SARA Section 302:	Extremely Hazardous Substances
SARA Section 304:	Emergency Release
SARA Section 311:	SDS/List of Chemicals and Hazardous Inventory
SARA Section 312:	Emergency and Hazardous Inventory
SARA Section 313:	Toxic Chemicals and Release Reporting
STEL:	Short Term Exposure Limit`
SVF:	Synthetic Vitreous Fiber
TDG:	Transportation of Dangerous Goods
TLV:	Threshold Limit Value (ACGIH)
TSCA:	Toxic Substances Control Act
TWA:	Time Weighted Average
WHMIS:	Workplace Hazardous Materials Information System (Canada)

Revision Summary: Annual review.

SDS Prepared By: UNIFRAX RISK MANAGEMENT DEPARTMENT

DISCLAIMER

The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Safety Data Sheet. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgment; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, Unifrax I LLC does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.