



SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier used **RIGIDIZER™**
on the label:

Manufacturer/Supplier: **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

Recommended Use: **Generally used to increase the durability and surface erosion
resistance of blanket and board products.**

Emergency Phone Number: **CHEMTREC will provide assistance for chemical emergencies. Call 1-800-424-9300**

2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE/MIXTURE

Not classifiable per US OSHA HCS 2012, Canada WHMIS 2015, EU CLP and GHS.

LABELING ELEMENTS

Not applicable per US OSHA HCS 2012, Canada WHMIS 2015, EU CLP and GHS.

CAUTION! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN, EYE, AND RESPIRATORY TRACT IRRITATION.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	% BY WEIGHT
Water	7732-18-5	65-73
Silica (amorphous)	7631-86-9	27-35

4. FIRST AID MEASURES

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion

SKIN

Handling of this material may generate temporary, mild mechanical skin irritation. If this occurs, rinse affected areas with water and wash gently. Do not rub or scratch exposed skin.

EYES

In case of eye contact flush abundantly with water; have eye bath available. Do not rub eyes.

NOSE AND THROAT

If these become irritated move to a dust free area, drink water and blow nose.

If symptoms persist, seek medical advice.

Most important symptoms/effects, acute and delayed

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure. These effects are usually temporary.

Indication of immediate medical attention and special treatment needed, if necessary

NOTES TO PHYSICIANS

Skin and respiratory effects are the result of temporary, mild mechanical irritation; exposure does not result in allergic manifestations.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media

Use extinguishing agent suitable for surrounding combustible materials.

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

Non-combustible products, class of reaction to fire is zero.

Packaging and surrounding materials may be combustible.

Special protective equipment and precautions for fire-fighters

NFPA Codes: Flammability: 0 Health: 1 Reactivity: 0 Special: 0

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Minimize airborne dust. Compressed air or dry sweeping should not be used for cleaning. See Section 8 "Exposure Controls / Personal Protection" for exposure guidelines.

Methods and materials for containment and cleaning up

Do not walk through spilled material. Shovel into a container for later disposal. Avoid cleanup procedures that may result in water pollution. For dried product, frequently clean the work area with vacuum or wet sweeping to minimize the accumulation of debris. Do not use compressed air for clean-up.

EMPTY CONTAINERS

Product packaging may contain residue. Do not reuse.

7. HANDLING AND STORAGE

Precautions for safe handling

Normal conditions of use and application are not expected to release respirable particulates. Removal of used product, sanding, scraping, or otherwise destroying the integrity of the dried product may result in the release of particulates. During such operations, appropriate respiratory protection should be provided as discussed below and in Section 8 under Respiratory Protection.

Minimize airborne dusts by avoiding the unnecessary disturbance of materials. Limit use of power tools unless in conjunction with local exhaust ventilation. Use hand tools whenever possible.

Removal and clean up of after service product may result in exposure to a crystalline phase silica (See Section 16 for more details). Depending on the product's use, other contaminants may also be present. During removal, the exposed material should be frequently misted with water to minimize airborne dust. A surfactant may be added to the water to improve the wetting process. Use only enough water to wet the insulation. Do not allow water to accumulate on floors.

Clean Up

Dust suppressing cleaning methods such as wet sweeping or vacuuming should be used to clean the work area. Compressed air or dry sweeping should not be used for cleaning. Dust suppressing compounds may be used to clean up light dust.

For additional information regarding the use and handling of this product, contact the Unifrax Product Stewardship Information Line at 1-800-322-2293 (See Section 16).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

Components	OSHA	ACGIH	MANUFACTURER
Water	None Established	None Established	None Established
Silica (amorphous)	20 mmpcf or 30 mg/m ³ / %SiO ₂	10 mg/m ³ inhalable particulate, 3 mg/m ³ respirable particulate.	None Established

ENGINEERING CONTROLS

Dust suppressing control technologies such as local exhaust ventilation, point of generation dust collection, down draft work stations, emission controlling tool designs, and materials handling equipment are effective means of minimizing airborne particulate emissions. For additional information, contact the Unifrax Product Stewardship Information Line at 1-800-322-2293 (See Section 16).

PERSONAL PROTECTION EQUIPMENT

EYE PROTECTION:

Wear safety glasses with side shields or chemical goggles to prevent eye contact. Do not wear contact lenses unless chemical goggles are also worn. Do not touch eyes with soiled body parts or materials. Have eye washing facilities readily available where eye contact can occur.

SKIN PROTECTION

Wear personal protective equipment (e.g gloves), as necessary to prevent skin irritation. Washable or disposable clothing may be used. If possible, do not take unwashed clothing home. If soiled work clothing must be taken home, employees should be informed on best practices to minimize non-work dust exposure (e.g., vacuum clothes before leaving the work area, wash work clothing separately, and rinse washer before washing other household clothes).

RESPIRATORY PROTECTION:

When engineering and/or administrative controls are insufficient to maintain workplace concentrations below a regulatory OEL, the use of appropriate respiratory protection, pursuant to the requirements of OSHA 1910.134 AND 29 CFR 1926.103, is recommended. The evaluation of workplace hazards and the identification of appropriate respiratory protection is best performed, on a case by case basis, by a qualified Industrial Hygienist.

9. PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance (physical state, color, etc.);	Pink liquid.
(b) Odor;	Odorless
(c) Odor threshold;	None
(d) pH;	10.1-10.5
(e) Melting point	N. App.
(f) Initial boiling point and boiling range;	100° C (212° F)
(g) Flash point;	Not applicable
(h) Evaporation rate;	Not applicable
(i) Flammability (solid, gas);	Not applicable
(j) Upper/lower flammability or explosive limits;	Not applicable
(k) Vapor pressure;	17.5 @20° C (68° F)
(l) Vapor density;	1.0
(m) Relative density;	1.3
(n) Solubility;	Not applicable
(o) Partition coefficient: n-octanol/water;	Not applicable
(p) Auto-ignition temperature;	Not applicable
(q) Decomposition temperature;	Not applicable
(r) Viscosity.	Not applicable

10. STABILITY AND REACTIVITY

(a) Reactivity	Non-reactive.
(b) Chemical stability	As supplied product is stable and inert.
(c) Possibility of hazardous reactions	None
(d) Conditions to avoid	Please refer to handling and storage advice in Section 7
(e) Incompatible materials	None
(f) Hazardous decomposition products	RIGIDIZER

11. TOXICOLOGICAL INFORMATION

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).

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).

Amorphous silica is not listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) and has not been found to be a potential carcinogen by OSHA.

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

12. ECOLOGICAL INFORMATION

(a) Ecotoxicity (aquatic and terrestrial, where available)	No known aquatic toxicity.
(b) Persistence and degradability	These products are insoluble materials that remain stable over time and are chemically identical to inorganic compounds found in the soil and sediment; they remain inert in the natural environment.
(c) Bioaccumulative potential	No bioaccumulative potential.
(d) Mobility in soil	No mobility in soil.
(e) Other adverse effects (such as hazardous to the ozone layer)	No adverse effects of this material on the environment are anticipated.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: This product is not classified as a hazardous waste according to Federal regulations (40 CFR 261). Check local, regional, state or provincial regulations for applicable requirements for disposal. 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.

EMPTY CONTAINERS: Product packaging may contain product residue. Do not reuse.

14. TRANSPORT INFORMATION

(a) UN number	Not Applicable
(b) UN proper shipping name	Not Applicable
(c) Transport hazard class(es)	Not Applicable
(d) Packing group, if applicable	Not Applicable
(e) Environmental hazards (e.g., Marine pollutant (Yes/No))	Not a marine pollutant
(f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	Not Applicable
(g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises	Not Applicable

Canadian TDG Hazard Class & PIN: Not regulated

Not classified as dangerous goods under ADR (road), RID (train) or IMDG (ship).

15. REGULATORY INFORMATION

Key statutory and regulatory classifications or listings for the product, as manufactured, which may impact product storage, use, handling or disposal:

U.S. FEDERAL REGULATIONS

Toxic Substances Control Act (TSCA):

All substances in this product are listed, as required, on the TSCA inventory.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Hazard Category:

Listed below are the hazard categories for the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370):

Immediate Hazard: --
Delayed Hazard: X

Fire Hazard: --
Pressure Hazard: --

Reactivity Hazard: --

INTERNATIONAL REGULATIONS

Canadian Workplace Hazardous Materials Information System (WHMIS 2015):

This product is not classified under WHMIS 2015.

Canadian Environmental Protection Act (CEPA):

All substances in this product are listed, as required, on the Domestic Substances List (DSL).

16. OTHER INFORMATION

After-Service: Removal

The amorphous silica contained in this product may devitrify and form cristobalite (a form of crystalline silica) when used at temperatures above 1000°C for sustained periods. Chronic exposure to respirable crystalline silica may lead to lung disease. IARC has concluded that: "Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)." [IARC Monograph 68, June 1997, p. 210-211]. The Occupational Safety and Health Administration (OSHA) has adopted a permissible exposure limit (PEL) for respirable cristobalite at 0.05 mg/m³. When needed, the use of proper exposure controls and respiratory protection is recommended to reduce potential health risks and to ensure compliance with OSHA requirements. The evaluation of workplace hazards and the identification of appropriate respiratory protection is best performed, on a case by case basis, by a qualified Industrial Hygienist. For more detailed information regarding respirable crystalline silica, call the Product Stewardship Information Hotline (see below).

Product Stewardship Program

Unifrax 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 Product Stewardship Information Hotline at 1-800-322-2293.

Definitions:

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS:	Chemical Abstracts Service
EPA:	Environmental Protection Agency
HEPA:	High Efficiency Particulate Air
HMIS:	Hazardous Materials Information System
mg/m³:	Milligrams per cubic meter of air
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 Standard
	29 CFR 1910.1200 & 1926.59: OSHA Hazard Communication Standard
PEL:	Permissible Exposure Limit
RCRA:	Resource Conservation and Recovery Act
SARA:	Superfund Amendments and Reauthorization Act
	Title III: Emergency Planning and Community Right to Know Act
	Section 302: Extremely Hazardous Substances
	Section 304: Emergency Release
	Section 311: SDS/List of Chemicals and Hazardous Inventory
	Section 312: Emergency and Hazardous Inventory
	Section 313: Toxic Chemicals and Release Reporting
TLV:	Threshold Limit Value (ACGIH)
TSCA:	Toxic Substances Control Act

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.