



SAFETY DATA SHEET

1. IDENTIFICATION

Product Group: EXCELFRA[®]

Product Identifiers: Excelfrax[®] 1800 Board
Excelfrax[®] 1800 Flexliner (encapsulated)
Excelfrax[®] 200 VIP (encapsulated)
Excelfrax[®] 1900 Panel

Recommended Use: High Temperature Insulation

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

CHEMTREC Assist: CHEMTREC will provide assistance for chemical emergencies. Call 1-800-424-9300

2. HAZARDS IDENTIFICATION

Not Classified in accordance with paragraph (d) of OSHA HCS 2012 §1910.1200

Hazards Not Otherwise Classified:

Eye Contact: May cause eye irritation.

Skin Contact: Slight mechanical irritation is possible.

Inhalation: Inhalation of dust may cause respiratory tract (nose, throat, lungs) irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

	CAS#	1800 Board	1800 Flexliner (encapsulated)	200 VIP (encapsulated)	1900 Panel
		% by Weight			
Amorphous silica	69012-64-2	80	50	80	80
Silicon carbide (nonfibrous)	409-21-2	15	-----	15	-----
Zirconium silicate	10101-52-7	-----	45	-----	15
Fibrous glass (continuous filament)	65997-17-3	5	-----	-----	-----
Aluminum oxide	1344-28-1	-----	5	-----	-----

4. FIRST AID MEASURES

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.

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:

Wash area of contact thoroughly with soap and water. Do not rub or scratch exposed skin. Using a skin cream or lotion after washing may be helpful.

GASTROINTESTINAL IRRITATION:

If gastrointestinal tract irritation develops, move the person to a dust free environment.

5. FIRE FIGHTING MEASURES

This product is non-combustible (does not burn).

6. ACCIDENTAL RELEASE MEASURES

Avoid creating airborne dust. Dust suppressing cleaning methods such as wet sweeping or vacuuming should be used to clean the work area. If vacuuming, the vacuum must be equipped with a HEPA filter. Compressed air or dry sweeping should not be used for cleaning.

7. HANDLING AND STORAGE

STORAGE

Store in a dry area.

HANDLING

Limit use of power tools unless in conjunction with local exhaust. Use hand tools whenever possible. Frequently clean the work area with HEPA filtered vacuum or wet sweeping to minimize the accumulation of debris. Do not use compressed air for clean-up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Use engineering controls such as local exhaust ventilation, point of generation dust collection, down draft work stations, emission controlling tool designs, and materials handling equipment designed to minimize airborne particulate.

Respiratory Protection:

In case of dust formation, use a NIOSH approved respirator for nuisance dust.

EXPOSURE GUIDELINES

ALL PRODUCTS

COMPONENTS	OSHA PEL	ACGIH TLV
Silica, amorphous	20 mppcf or 80 mg/m ³ / % SiO ₂	10 mg/m ³

Excelfrax® 1800 Board

COMPONENTS	OSHA PEL	ACGIH TLV
Silicon carbide (nonfibrous)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)	10 mg/m ³ TWA (inhalable fraction) 3 mg/m ³ (respirable fraction)
Fibrous glass (continuous filament)	1 fiber/cc	1 fiber/cc

Excelfrax® 1800 Flexliner (encapsulated)

COMPONENTS	OSHA PEL	ACGIH TLV
Aluminum oxide	15 mg/m ³ total dust 5 mg/m ³ respirable fraction	1 mg/m ³
Zircon silicate	15 mg/m ³ total dust 5 mg/m ³ respirable fraction	5 mg/m ³
Fibrous glass (continuous filament)	1 fiber/cc	1 fiber/cc

Excelfrax® 200 VIP (encapsulated)

COMPONENTS	OSHA PEL	ACGIH TLV
Silicon carbide (nonfibrous)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)	10 mg/m ³ TWA (inhalable fraction) 3 mg/m ³ (respirable fraction)

Skin Protection:

Wear gloves, head coverings and full body clothing as necessary to prevent skin irritation. Barrier cream may be useful to prevent dryness of skin.

Eye Protection:

In case of dust formation, wear safety glasses with side shields or other forms of eye protection in compliance with appropriate OSHA standards to prevent eye irritation. Do not touch eyes with soiled body parts or materials. If possible, have eye-washing facilities readily available where eye irritation can occur.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Off-white board	Upper/lower flammability or explosive limits	Not applicable
Odor	Odorless	Vapor pressure	Not applicable
Odor threshold	Not applicable	Vapor density	Not applicable
pH	Not applicable	Relative density	
		1800 Board	230 kg/m ³ (14.4 pcf)
		1800 Flexliner	365 kg/m ³ (22.8 pcf)
		200 VIP	280 kg/m ³ (17.5 pcf)
Melting point	>1200° C	Solubility	Insoluble
Initial boiling point and boiling range	Not applicable	Partition coefficient: n-octanol/water	Not applicable
Flash point	Not applicable	Auto-ignition temperature	Not applicable

Evaporation rate
Flammability

Not applicable
Not applicable

Decomposition temperature
Viscosity

Not applicable
Not applicable

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under conditions of normal use.

INCOMPATIBILITY: None.

CONDITIONS TO AVOID: None.

HAZARDOUS DECOMPOSITION PRODUCTS:

Excelfrax® 1800 Board & Excelfrax® 200 VIP

At combustion, silicon carbide, silica, carbon dioxide, carbon monoxide, incompletely burnt hydrocarbons (in traces) may be formed. Use adequate ventilation or other precautions to eliminate exposure to vapors resulting from thermal decomposition.

Excelfrax® 1800 Flexliner (encapsulated)

At combustion, zirconium compounds, aluminum oxide, silica, carbon dioxide, carbon monoxide, incompletely burnt hydrocarbons (in traces) may be formed. Use adequate ventilation or other precautions to eliminate exposure to vapors resulting from thermal decomposition.

HAZARDOUS POLYMERIZATION: Not Applicable.

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).

Excelfrax® 1800 Board & Excelfrax® 1800 Flexliner contain fibrous glass (continuous filament). In case of dust formation, exposure to these fibers may occur. The fibers are not respirable, i.e. can not enter the lungs, due to their >3 micron length to diameter ratio. Glass filaments have been classified by IARC as not classifiable as to their carcinogenicity to humans (Group 3).

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

No ecological concerns have been identified.

13. DISPOSAL CONSIDERATIONS

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.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

BILL OF LADING DESCRIPTION (49 CFR 172.202): Exelfrax (NON-REGULATED)

UNITED NATIONS (UN) NUMBER: NOT APPLICABLE

NORTH AMERICA (NA) NUMBER: NOT APPLICABLE

15. REGULATORY INFORMATION

EPA: **Toxic Substances Control Act (TSCA)** - All substances in this product are listed, as required, on the TSCA inventory.

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.

Canada: **Canadian Workplace Hazardous Materials Information System (WHMIS):**
No Canadian Workplace Hazardous Materials Information System (WHMIS) categories apply to this product.
Canadian Environmental Protection Act (CEPA) - All substances in this product are listed, as required, on the Domestic Substance List (DSL)

16. OTHER INFORMATION

Formation of crystalline silica (cristobalite) is possible after prolonged use (> 900°C). IARC's evaluation of crystalline silica states %Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)+and additionally notes %carcinogenicity in humans was not detected in all industrial circumstances studied+(IARC Monograph Vol. 68, 1997). NTP lists all polymorphs of crystalline silica amongst substances which may "reasonably be anticipated to be carcinogens".

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.

Revision Date: 01/16/2018

Revision Summary: Annual review.

SDS Prepared By: UNIFRAX RISK MANAGEMENT DEPARTMENT

DISCLAIMER

The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.