

# MATERIAL SAFETY DATA SHEET

## 3. HAZARDS IDENTIFICATION

Effective Date: 07/18/2007

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Group:** REFRACTORY NON-CERAMIC FIBER PRODUCT

**Chemical Name:** CALCIUM-MAGNESIUM-SILICATE FIBER

**Trade Names:** ISAFORM NCF 1800°

**Manufacturer/Supplier:** Insulation Specialties of America, Inc.

P.O. Box 10  
1095 Kabert Drive  
Wanatah, IN 46390

Unifrax Product Stewardship Information Hotline  
1-800-322-2293 (Monday - Friday 8:00 a.m. - 4:30 p.m. EST)

For additional MSDS sheets call Insulation Specialties of America, Inc. at (219) 733-2502

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

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>COMPONENTS</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>
Calcium-Magnesium-Silicate Fiber (vitreous)	65997-17-3	80-90
Silica (amorphous)	7631-86-9	8-20
Starch	56780-58-6	3-10

## 3. HAZARDS IDENTIFICATION

### MAY IRRITATE EYES, SKIN, and RESPIRATORY TRACT

May cause temporary mechanical irritation to eyes, skin, and respiratory tract.

Pre-existing medical conditions, including dermatitis, asthma, or chronic lung disease may be aggravated by exposure; individuals who are atopic (with a history of allergies) may experience greater amounts skin and eye irritation.

## 4. FIRST AID MEASURES

## **FIRST AID PROCEDURES**

### **RESPIRATORY TRACT (nose & throat) IRRITATION:**

If respiratory tract irritation occurs, relocate the individual to a dust free environment. Get medical attention if the irritation continues. See Section 8 for additional measures to reduce or eliminate exposure.

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

## **5. FIRE FIGHTING MEASURES**

**Non-combustible (does not burn) product.**

Packaging and surrounding materials may be combustible.  
Use extinguishing agent suitable for surrounding combustible materials.

## **6. ACCIDENTAL RELEASE MEASURES**

### **SPILL PROCEDURES**

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**

### **HANDLING AND STORAGE**

Minimize airborne dusts by avoiding the unnecessary disturbance of materials.

### **CLEAN - UP**

Clean up dust carefully. Use wet sweeping or high efficiency vacuum to remove dust. Do not use compressed air.

## **EMPTY CONTAINERS**

Product packaging may contain residue. Do not reuse.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **EXPOSURE GUIDELINES**

<b>COMPONENTS</b>	<b>OSHA PEL</b>	<b>MANUFACTURER REG</b>
Calcium-Magnesium silicate fiber	None Established*	0.5 f/cc, 8-hr. TWA**
Silica (amorphous)	6 mg/m <sup>3</sup>	None Established
Starch	5 mg/m <sup>3</sup>	None Established

\* For calcium-magnesium silicate fiber, refer to the OSHA guidance regarding “Particulates Not Otherwise Regulated”(PNOR). Control airborne dust levels as follows:

#### **Components Particle Size OSHA**

PNOR Total Dust 15mg/m<sup>3</sup>

Respirable Dust 5 mg/m<sup>3</sup>

ACGIH Particulates Not Otherwise Classified (PNOC) – Inhalable particulate: 10mg/3.  
Respirable particulate: 3 mg/m<sup>3</sup>.

\*\* As with most industrial materials, it is important to minimize any unnecessary exposure to respirable dusts.

### **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 fiber emissions.

### **PERSONAL PROTECTION EQUIPMENT**

#### **Respiratory Protection:**

When engineering and/or administrative controls are insufficient, the use of appropriate respiratory protection, pursuant to the requirements of OSHA Standards 1910.134 is recommended. For dust concentrations below applicable exposure limit value, PPE is not required. 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.

**Skin Protection:**

Wear gloves, head coverings and full body clothing as necessary to prevent skin irritation.

**Eye Protection:**

In case of overhead work, wear goggles or safety glasses with side shields to prevent eye contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Oxidizing Properties: None

Odor: None

Melting Point: 1500-1550°C (2730-2820°F)

Flammability: None

Explosive Properties: None

## 10. STABILITY AND REACTIVITY

### CONDITIONS OR MATERIALS TO AVOID

Avoid direct contact with strong acid environments.

## 11. TOXICOLOGICAL INFORMATION

### EPIDEMIOLOGY

This product has not been the subject of epidemiological study. Epidemiological studies related to other fiber chemistries of similar solubility have not identified a statistically significant incidence of exposure related respiratory disease.

## 12. ECOLOGICAL INFORMATION

No ecological concerns have been identified.

## **13. DISPOSAL CONSIDERATIONS**

As produced, this product is usually accepted for disposal at most sites licensed for disposal of industrial waste. Check applicable regulations and waste site polices prior to disposal. Waste should be placed in sealed containers for disposal.

## **14. TRANSPORT INFORMATION**

Product should remain in sealed containers during transportation.

## **15. REGULATORY INFORMATION**

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

### **U.S. FEDERAL REGULATIONS**

**SARA TITLE III:** This product is not regulated under SARA Sections 302,304,311-312 and 313.

### **Comprehensive Environmental Response Compensation and Liability Act of 1980(CERCLA)**

INSULFRAX ® THERMAL INSULATION fibers are composed of fiber with an average diameter greater than 1 micron, and therefore are not considered CERCLA hazardous substances. See 60 FR 30934 (June 12, 1995).

### **Clean Air Act (CAA):**

INSULFRAX ® THERMAL INSULATION fibers are composed of fiber with an average diameter greater than 1 micron, and therefore are not considered hazardous air pollutants. See 60 FR 30934 (June 12, 1995).

### **Toxic Substances Control Act (TSCA):**

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

## STATE REGULATIONS

**California:** Calcium-Magnesium silicate fiber has not been listed by the State of California on Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986.

**New Jersey:** Calcium-Magnesium silicate fiber is not listed as a special health hazard substance as defined in New Jersey Worker and Community Right to Know Act, New Jersey Administrative Code, Title 8, Department of Health, Chapter 59, Subchapter 10.

**Pennsylvania:** Calcium-Magnesium silicate fiber is not listed as a special hazard substance as defined in Pennsylvania Right-to-Know Law, Section 3800.

## INTERNATIONAL REGULATIONS

### **Canadian Workplace Hazardous Materials Information Systems (WHMIS):**

No Canadian Workplace Hazardous Materials Information System (WHMIS) categories apply to the product.

### **Canadian Environmental Protection Act (CEPA):**

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

No chemicals in this product are listed on the Non-Domestic Substances List.

### **European Directive 97/69/EC**

By virtue of testing results, Insulfrax® fiber has been exempted from classification and labeling as a potential carcinogen.

### **German Hazardous Substance Ordinance**

By virtue of testing results, Insulfrax® fiber may be used without the limitations or concern for requirements imposed on other man-made mineral fibers by the Ordinance.

## 16. OTHER INFORMATION

### **After-Service Insulfrax® Thermal Insulation: Removal**

As produced, Insulfrax fibers are vitreous (glassy) materials which do not contain crystalline silica. Continued exposure to elevated temperatures can cause the vitreous magnesium silicate

(alkaline-earth-silicate) fibers to devitrify (become crystalline). Clinoenstatite is the first crystalline formation to occur at approximately 1472 ° F (800° C). Clinoenstatite formation peaks at approximately 1832° F (1000° C), after which Protoenstatite (compositionally the same as Clinoenstatite) begins to form. Crystalline phase silica (Cristobalite) formation is possible at temperatures of approximately 2192° F (1200° C); however, the formation of crystalline silica is highly dependent on temperature, the duration of time that the fibers are exposed to high temperatures, fiber chemistry and/or the presence of fluxing agents. The formation of crystalline silica can only be confirmed through laboratory analysis of the “hot face” fiber.

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.”

During removal operations, the use of a full-face respirator is recommended to reduce inhalation exposure along with eye & respiratory tract irritation. A specific evaluation of workplace hazards and the identification of appropriate respiratory protection is best performed, on a case-by-case basis, by a qualified industrial hygiene professional

#### **DISCLAIMER**

This information presented herein is based on data considered to be accurate as of the date of preparation of this Material 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.