

## MATERIAL SAFETY DATA SHEET

Effective: January 2009

### I. IDENTIFICATION

- A. Product Name: ELFOAM® Polyisocyanurate "P Series" Foams  
B. Technical Name: Rigid Foamed Polyurethane or Polyisocyanurate  
C. Formula: Proprietary

### II. INGREDIENTS

- A. Polymerized polyurethane modified Polyisocyanurate cellular plastic: 92 – 97%  
B. Proprietary Hydrocarbon blowing agents < 8%

### III. PHYSICAL DATA

- A. Appearance: Rigid cellular plastic sheets, shapes and blocks of variable color  
B. Odor: None  
C. Density: 1.6 – 6.0 lbs./ft<sup>3</sup>  
D. Solubility in water: Not applicable

### IV. FIRE AND EXPLOSION DATA

- A. Auto-ignition: 600°F – 800°F (316°C – 427°C)  
B. Dust: To reduce explosion potential, do not permit dust to accumulate.  
C. Extinguishing media: Water, Carbon Dioxide, Foam or Dry Chemicals  
D. Special Fire-Fighting Procedures: Full emergency equipment with self-contained breathing apparatus should be worn by fire fighters.

### V. PHYSICAL HAZARDS

- A. Stability (conditions to avoid): Stable at typical use temperatures.  
B. Incompatibility (specific material to avoid): Avoid contact with oxidizing materials.  
C. Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, hydrogen fluoride, hydrogen chloride, aromatic hydrocarbons, possible traces of hydrogen cyanide and nitrogen oxides under fire conditions.  
D. Hazardous polymerization: May occur if exposed to ignition sources or product combustion.

### VI. HEALTH HAZARDS

- A. Eye: Solid or dust may cause irritation or corneal injury due to mechanical action.  
B. Skin contact: Essentially nonirritating to the skin, mechanical injury only.  
C. Skin absorption: Skin absorption unlikely due to physical properties  
D. Ingestion: Ingestion is unlikely due to physical state. Mechanical injury only. May cause choking if swallowed.  
E. Inhalation: Dust may cause irritation to upper respiratory tract. Vapor/fumes generated in thermal operation such as hot-wire cutting may cause irritation unless area is adequately ventilated.  
F. Systemic & Other effects: Repeated excessive exposures to dusts may cause respiratory irritation and possible other respiratory effects.

### VII. FIRST AID

- A. Eyes: Irrigate immediately with water for at least 5 minutes. Mechanical effects only.  
B. Skin: Wash off with flowing water or shower.  
C. Ingestion: No adverse effect anticipated.  
D. Inhalation: Remove to fresh air if effects occur. Consult a physician.

## VIII. HANDLING PRECAUTIONS

- A. Exposure guidelines: None established. For particulates that have no specific guidelines, the ACGIH TLV is 10mg/m<sup>3</sup> and the OSHA PEL is 15mg/m<sup>3</sup> respirable.
- B. Ventilation: Control airborne concentrations below the exposure guideline. Use local exhaust ventilation for dusty operation or when hot-wire cutting.
- C. Respiratory protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air purifying respirator. In dusty atmospheres, use an approved dust respirator.
- D. Skin protection: No skin protection is normally required.
- E. Eye protection: Use safety goggles. If there is a potential for exposure to particles that could cause mechanical injury to the eye wear chemical goggles.

## IX. ADDITIONAL INFORMATION

- A. Precautions to be taken in handling & storage
1. Store foam with adequate aiseways to permit access to all areas.
  2. Protect indoor foam storage with fusible sprinklers when possible.
  3. Smoking, open flame or other ignition sources should not be allowed in foam storage or handling areas.
  4. All "Hot Work"(welding, cutting, etc.) should be complete prior to foam installation. If "Hot Work" must be done after the foam has been installed, the "Hot Work" trade must be warned.
    - a) Remove foam from immediate work area a sufficient distance that heat transmitted from the torch or through the metal will not ignite the foam.
    - b) Remove all combustible material from vicinity of and immediately below work area.
    - c) Post a firewatcher equipped with a fire extinguisher during and for 30 minutes after hot operation.
  5. Foam used, as wall or ceiling insulation must be covered as soon as practical with a fire resistive thermal barrier having at least a 15-minute fire finish rating. If covering is not immediately possible or practical, post-signs that a fire hazard exists because of exposed foam.
  6. Hot wire cutting of foam should be done under adequate ventilation to remove fumes and gases developed.
  7. Do not install foam in any flue-like configuration.
- B. Environmental and disposal information
1. Do not allow dust or scrap to accumulate. Keep work areas clean and orderly.
  2. Scrap disposal should be done according to good industrial practice and environmental protection regulations. Incinerate or bury in an approved landfill according to local, state, and federal regulations.
  3. Surface photodegradation is expected upon exposure to ultraviolet light. No biodegradation is anticipated.
- C. For more detailed information on precautions for the proper handling and storage of polyisocyanurate foam, contact the customer service department, Elliott Company of Indianapolis Inc.

## X. REGULATORY INFORMATION (not meant to be all-inclusive)

- A. SARA Hazard Category: This product has been reviewed according to the Environmental Protection Agency (EPA) "Hazard Categories" promulgated under Sections 311 and 312 of Title III of SARA and is considered under applicable definitions, not to have any hazard category.
- B. Toxic Substance Control Act: All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

Notice: Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to insure that its activities comply with federal, state or provincial, and local laws. The above specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.