

Material Safety Data Sheet

Expanded Polystyrene is not listed as a toxic or hazardous material by either O.S.H.A. or T.O.S.C.A. The purpose of this Material Safety Data Sheet is to familiarize you with E.P.S. and aid in the establishment of material handling and employee safety procedures.

I. Identification

- A. Product Name: Expanded Polystyrene
- B. Chemical Synonym: E.P.S.
- C. Chemical Family: Carbocyclic Polymer

II. Hazardous Ingredients

- A. Ingredient: Pentane (Blowing agency)
- B. Percent Present: 1.0% maximum
- C. Hazard Data
 - 1. Inhalation
 - 2. Fire: Threshold Limit Value 600 ppm 1800/mg/m³

- D. Notes: EPS, as a finished cellular board, contains less than 1.0% residual pentane. Pentane is not dangerous or harmful in any way until it reached a of 1.5% or greater in the air.

III. Physical Data

- A. Appearance and Odor: Rigid cellular board - no odor.
- B. Density: 1 pound per cubic foot +/- 1 lb.
- C. Solubility in water: Insoluble
- D. % Volatile: 1.0% maximum
- E. Ignition temperature (Will actually burn) 675 degrees F.

IV. Fire & Explosion Hazards

- A. Flash Point: N/A
- B. Explosive Limit: 1.5% or greater pentane in the air.
- C. Extinguishing Media: Carbon Dioxide, Water Spray, or Dry Chemical
- D. Special precautions: Use large volume of water directly on flame or burning surface.

V. Health Information

- A. Effect of Overexposure:
 - 1. Eye - dust or particles may cause mechanical irritation
 - 2. Ingestion- may act as an obstruction if swallowed, as would any bulky inert material.
- B. Toxicity Test: N/A; Expanded Polystyrene is biologically inert.

VI. Emergency First-Aid Procedure

- A. Inhalation: consult physician if irritation of respiratory passages occurs.
- B. Eye contact: remove particles with clean lint free cloth, then consult physician.
- C. Skin contact: consult physician for contact dermatitis.
- D. Ingestion: consult physician.

VII. Reactivity Data

- A. Chemical Stability: Stable
- B. Hazardous Polymerization: will not occur
- C. Condition to avoid: flames and high temperatures
- D. Material to avoid:
 - 1. Hydrocarbons
 - 2. Esters (organic compound used in solvents)
 - 3. Insecticides
 - 4. Amines
 - 5. Aldehydes
- E. Hazardous Decompositions Products (If EPS is burned):
 - 1. Carbon Monoxide
 - 2. Carbon Dioxide
 - 3. Carbon

VIII. Spill or leak procedures

- A. Spill of lead procedures: collect into a suitable container
- B. Waste disposal: bury in approved landfill or burn in incinerator with excess oxygen

IX. Employee Protection

- A. Respiratory Protection: dust mask may be needed when fabrication with saws or grinding equipment
- B. Protective clothing: eye protection needed when cutting by saws

X. Special Precautions

- A. Expanded Polystyrene is combustible and adequate protection from sources if ignited should be taken