



MATERIAL SAFETY DATA SHEET

HMIS
 H = 1
 F = 3
 R = 0
 PPE = See Section 8

Section I

Manufacturer: Siplast, an Icopal Group Company
 (800) 643-1591 or (800) 922-8800
Address: 1000 E. Rochelle Blvd., Irving, TX 75062
Emergency Phone No.: CHEMTREC, (800) 424-9300 (U.S.), (703) 527-3887 (outside of U.S.)
Product Class: Expanded Polystyrene Products
Trade Name: Insulperm[®] Insulation Board
Chemical Names and Family: Expanded Polystyrene Board and Custom Molded Polystyrene Inserts
Product Use: Insulation Board
Formula: (C₈H₈)_n
CAS # (Chemical Abstract Service): 09003-53-6

Transportation Hazard Classification United States DOT

Proper Shipping Name: Nonhazardous
 Hazard Class: Nonhazardous
 Identification #: Nonhazardous
 Label(s) Required: Nonhazardous
 Surface Freight Classification: Plastic articles, blocks or panels

Section II - Ingredients

INGREDIENT	EXPOSURE LIMITS		
	OSHA PEL	ACGIH TLV	NIOSH REL
Pentane, residual CAS # 00109-66-0	600 ppm-TWA 750 ppm-STEL 5000 ppm-IDLH	600 ppm-TWA 750 ppm-STEL	120 ppm for 10 hr-TWA

INGREDIENT: (Chemical Name, CAS #, & Common Name)	% BY WT.	TOXICITY DATA: LD ₅₀ & LC ₅₀
¹ Pentane, residual (CAS # 109-66-0)	0-3.0%	No data available

¹Contained as a blowing agent.

Section III - Physical Data

Boiling Point: Not applicable
 Evaporation Rate (Butyl Acetate = 1): Not applicable
 % Volatile by Volume: 0-3.0% as pentane
 Vapor Pressure (mm Hg.): 445 mmHg @ 70°F (for pentane)
 Vapor Density (AIR =1): >1 for pentane
 Solubility in Water: Negligible

Bulk Density (lb./cu. ft): Approx. 1.0
 Appearance and Odor: White to yellow lightweight board and molded parts with characteristic odor.
 Odor Threshold: Approx. 400 ppm (for pentane)
 pH: Not applicable
 Specific Gravity (H₂O=1): Not applicable

Section IV - Fire and Explosion Data

Flash Point: 49°C (for pentane)
Method Used: (C.C.)
Flammable Limits: LEL: 1.5% UEL: 7.8%
N.F.P.A. Rating: H-1, F-4, R-0 (for pentane)
Extinguishing Media: In case of fire, use dry chemical, carbon dioxide, or alcohol foam. When heated near melting point, EPS will drip and burn. Water may spread liquid and be ineffective.
Special Procedures: Because EPS produces copious amounts of thick black smoke when it burns, a NIOSH-approved positive-pressure self-contained breathing apparatus should be worn.
Unusual Hazards: Until much of the residual pentane dissipates, fresh EPS may be able to supply enough vapor to form a flammable mixture with air. The mixture is explosive only when confined. If unconfined suddenly, and ignited, its rate of flame of propagation is high, and the flame appears to move in a flash, but without explosion.

Section V - Health Hazard Data

Routes of Exposure:

INHALATION: Inhalation is not expected to be a problem in most situations. However, fresh polystyrene contains residual pentane and if large amounts of EPS materials are stored in a confined, unventilated area such as a semi-trailer truck, pentane may off-gas and create measurable airborne concentrations. Effects of inhaling pentane include dizziness, drowsiness, eye and nose irritation, dermatitis and loss of coordination.

SKIN AND EYES: Dust or scrap of product may irritate eyes if contact occurs. Repeated skin contact may cause slight physical irritation.

INGESTION: Not likely to occur in an industrial setting. Not generally considered to be toxic if swallowed.

Carcinogenicity According to NTP, IARC and OSHA: IARC (Vol. 19, 251, 1979) reported polystyrene as a positive animal carcinogen based upon animal studies where subcutaneous implantation of polystyrene discs, rods and spheres induced local sarcomas in rats. No human data or epidemiology studies on the carcinogenicity of polystyrene in humans are known to IARC.

Section VI - Reactivity Data

Stability: Stable X Unstable _____
Conditions to Avoid: Excessive heat, sparks and flame.
Hazardous Decomposition or Byproducts: Carbon dioxide, carbon monoxide.
Hazardous Polymerization: May occur ____ Will not occur X
Conditions to Avoid: None known

Section VII - Spill & Disposal Information - U.S. Only

Observe all precautionary measures (Section 8). Pick up or shovel into dry containers and recycle or remove for disposal.

Waste of this product is not defined as hazardous according to the US EPA (40 CFR 261.3). Consult state and local regulations to determine if their hazardous waste definitions differ from the US EPA. Dispose of waste in accordance with all applicable regulations.

Section VIII - Special Protection Information

Warning Statements: CAUTION!

Styrene Foam CAS # 9003-53-6 is an organic cellular plastic foam and therefore combustible.

Fresh EPS may contain residual pentane (CAS # 109-61-0) which is extremely flammable. However, pentane content dissipates upon aging.

Inhalation of pentane which may build up in confined spaces such as delivery trucks may cause dizziness, drowsiness, and loss of coordination.

Direct contact with styrene foam products or dust may cause slight physical irritation to eyes and skin.

Precautionary Measures:

Do not expose to open flames, sparks or excessive heat. Local building codes may require the use of a thermal or fire barrier.

Store fresh material in well-ventilated areas.

Gloves and glasses or goggles are recommended if direct contact leading to physical irritation is likely.

Respiratory Protection:

Not generally required. In nonroutine situations where pentane vapor build-up occurs, use of a NIOSH-approved organic vapor respirator (Type TC-23C-XXX) is recommended.

**Trade Name: Insulperm® Insulation Board
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Ventilation:

Local Exhaust: No

Mechanical: Yes

Special: Not applicable

Other: Natural ventilation, i.e., winds, building cross-currents, etc., should be sufficient to adequately disperse residual pentane vapors released from fresh material.

Skin Protection: Gloves are recommended when handling EPS products to minimize repeated skin contact.

Eye Protection: Safety glasses are recommended when specific use of EPS products creates a significant amount of dust and/or scrap.

Other Protective Clothing or Equipment: Not applicable.

Work/Hygienic Practices:

Observe above precautions and practice good housekeeping.

**Section X - Government Reporting
Information - U.S. Only**

SARA Title III Reporting Information:

Tier I & II Hazard Categories: Fire

Contains Extremely Hazardous - SARA III Section 302 Ingredient: No

Contains Toxic Chemical Release - SARA III Section 313 Ingredient: No

Other Government Reporting Requirements: Not applicable.

Non-hazardous Ingredient Disclosure: Not applicable.

**Section IX - Emergency and First Aid
Procedures**

EYES: In case of eye contact, flush eyes with plenty of running water, lifting eyelids frequently. If irritation persists, consult a physician.

SKIN: If repeated skin contact results in persistent irritation, consult a physician to clear up condition and take precautionary measures to prevent its reoccurrence.

INHALATION: If vapor is inhaled, get fresh air immediately. Inform a supervisor. Consult a physician if symptoms persist.

INGESTION: If swallowed, consult a physician. Never give anything by mouth to an unconscious person.

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