

Safety Data Sheet

Material Name: 085 Insulfoam Molded EPS Products

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

085 Insulfoam Molded EPS and GPS Products

Trade Names

Part Number(s): Type XI, I, VIII, II, IX, XIV and XV, Treated, R-Tech and Platinum. Highly customizable: Thickness up to 40" in a single board. With or with out Polypropylene, Polyethylene or Polyester films

Synonyms

Molded Expanded Polystyrene (MEPS)

Product Use

Insulation materials, Industrial use, Consumer use. packaging.

Restrictions on Use

None known

Manufacturer Information

Insulfoam, a division of Carlisle Construction Materials
19727 57th Avenue East
Puyallup, WA 98375
253-271-3056

Section 2 - HAZARDS IDENTIFICATION

Classification

Eye effects: Category 2B
TOST: Single Exposure, category 3
Carcinogenicity: Category 2

Hazard Symbol



Signal Word

Warning

Hazard Statement(s)

May emit small amounts of pentane gas shortly after manufacture. Pentane is flammable and heavier than air and may accumulate in low areas when stored in unventilated confined spaces. Pentane can also accumulated when product is installed and or stored in enclosed areas with low ventilation. In these conditions the small amount of Pentane if not ventilated can exceed the LEL for Pentane. May form combustible dust concentrations in air

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Precautionary Statement(s)

Prevention

Pentane gas and dust are combustible. To prevent ignition, avoid smoking, keep open flames, sparks, and high temperatures away from the product. If installed or stored in large volumes in an enclosed space ventilation may be required to dissipate heavier than air combustible gas. Sawing or abrasion of the product may cause dust that may ignite if exposed to flame or heat source.

Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection to reduce skin irritation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| CAS | Component Name | Percent |
|-------------|-----------------------------|---------|
| 9003-53-6 | Polystyrene | 92-97 |
| 109-66-0 | Pentane ¹ | <2 |
| Proprietary | Non hazardous ingredient | <1 |
| Proprietary | Polymeric Film ² | 1-3 |

¹Flammable blowing agent that dissipates from product. Blowing agent is primarily dissipated prior to shipment. However, small amounts may off-gas during storage or use.

²R-Tech

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

IF exposed or concerned: Get medical advice/attention.

Inhalation

If adverse effects occur, remove to uncontaminated area. Get medical advice/attention if you feel unwell.

Skin

Wash with plenty of soap and water. Get medical attention, if needed.

Eyes

Rinse cautiously with water for several minutes. Get medical attention, if needed.

Ingestion

If swallowed, get medical attention.

Most Important Symptoms/Effects

Acute

No information on significant adverse effects.

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Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use carbon dioxide, regular dry chemical, regular foam or water.

Unsuitable Extinguishing Media

None known

Special Hazards Arising from the Chemical

Slight fire hazard. Combustible Dust. Dust/air mixtures may ignite or explode. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products

Oxides of carbon, hydrogen bromide

Advice for firefighters

Wear personal protective clothing and equipment such as self-contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Do not scatter spilled material with high-pressure water streams. Move container from fire area if it can be done without risk. Dike for later disposal.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Do not touch or walk through spilled material. Stop leak if possible without personal risk. Prevent dust cloud. Avoid inhalation of material or combustion by-products. Collect spilled material in appropriate container for disposal.

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Combustible substance. Minimize dust generation and accumulation. Use methods to minimize dust. Eliminate all sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke

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When using this product. Do not breathe dusts or mists. Do not get in eyes, on skin, or on clothing.

Conditions for Safe Storage, Including any Incompatibilities

Store locked up

Store in a cool dry place. Store in a well-ventilated place. Keep away from heat and ignition sources. Keep away from incompatible materials.

Incompatible Materials

Organic solvents, aldehydes, amines

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

| | |
|----------------|---|
| Pentane | 109-66-0 |
| ACGIH: | 1000 ppm TWA |
| NIOSH: | 120 ppm TWA; 350 mg/m ³ TWA |
| | 610 ppm Ceiling 15 min; 1800 mg/m ³ Ceiling 15 min |
| | 1500 ppm IDLH (10% LEL) |
| Europe: | 1000 ppm TWA; 3000 mg/m ³ TWA |
| OSHA (US): | 1000 ppm TWA; 2950 mg/m ³ TWA |
| Mexico: | 600 ppm TWA LMPE-PPT; 1800 mg/m ³ TWA LMPE-PPT |
| | 760 ppm STEL [LMPE-CT]; 2250 mg/m ³ STEL [LMPE-CT] |

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide adequate ventilation. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

Glove Recommendations

Wear appropriate chemical resistant gloves.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------------|------------------|---|----------------------------|
| Appearance | foam | Physical State | solid |
| Odor | Slight, pentane | Color | white |
| Odor Threshold | Not available | pH | Not available |
| Melting Point | 212 °F (softens) | Boiling Point | Not available |
| Freezing point | Not available | Evaporation Rate | Not available |
| Boiling Point Range | Not available | Flammability (solid, gas) | 2 |
| Autoignition | 850 °F | Flash Point | 610 °F |
| Lower Explosive Limit | Not available | Decomposition | Not available |
| Upper Explosive Limit | Not available | Vapor Pressure | Not available |
| Vapor Density (air=1) | Not available | Specific Gravity (water=1) | Not available |
| Water Solubility | Insoluble | Partition coefficient: n-octanol/water | Not available |
| Viscosity | Solid | Solubility (Other) | Not available |
| Density | 0.6 - 3 pcf | VOC | <1.8 % (Pentane and Water) |

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Avoid contact with incompatible materials.

Incompatible Materials

Organic solvents, aldehydes, amines

Hazardous decomposition products

Oxides of carbon, hydrogen bromide

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Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Dust may cause irritation of the nose, throat and upper respiratory tract.

Skin Contact

May cause mechanical irritation.

Eye Contact

May cause mechanical irritation.

Ingestion

No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Pentane (109-66-0)

Oral LD50 Mouse 5000 mg/kg
Dermal LD50 Rabbit 3000 mg/kg
Inhalation LC50 Rat 364 g/m³ 4 h

Immediate Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

No information available for the product.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

| | |
|-------------|---|
| Polystyrene | 9003-53-6 |
| IARC: | Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable)) |

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No information available for the product.

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

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No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Analysis - Aquatic Toxicity

| | |
|----------------|--|
| Pentane | 109-66-0 |
| Fish: | LC50 96 h Oncorhynchus mykiss 9.87 mg/L; LC50 96 h Pimephales promelas 11.59 mg/L; LC50 96 h Lepomis macrochirus 9.99 mg/L |
| Invertebrate: | EC50 48 h Daphnia magna 9.74 mg/L IUCLID |

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not Regulated

IATA Information:

UN#: Not Regulated

IMDG Information:

UN#: Not Regulated

TDG Information:

UN#: Not Regulated

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Section 15 - REGULATORY INFORMATION

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS | CA | MA | MN | NJ | PA |
|-----------|----------|-----|-----|-----|-----|-----|
| Pentane | 109-66-0 | Yes | Yes | Yes | Yes | Yes |

California Proposition 65:

Warning: this product can expose you to chemicals including Styrene, which are know to the State of California to cause cancer.

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

| | |
|---------|----------|
| Pentane | 109-66-0 |
| | 1 % |

Component Analysis - Inventory

Polystyrene (9003-53-6)

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR - KECI/KECL | KR - TCCA | CN | NZ | MX |
|-----|-----|----|-----|-----|-----------|-----------|----------------|-----------|-----|-----|-----|
| Yes | DSL | No | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes |

Pentane (109-66-0)

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR - KECI/KECL | KR - TCCA | CN | NZ | MX |
|-----|-----|-----|-----|-----|-----------|-----------|----------------|-----------|-----|-----|-----|
| Yes | DSL | EIN | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes |

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 1* Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 1 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

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Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH -Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use