

HUNTSMAN

HUNTSMAN CHEMICAL COMPANY OF CANADA, INC.

MATERIAL SAFETY DATA SHEET - 7400

November 6, 1996

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1 - PRODUCT INFORMATION			
PRODUCT: Expandable polystyrene SYNONYMS: Huntsman EPS PRODUCT GRADES: 51, 61, 16 CHEMICAL FAMILY: Polystyrene thermoplastic polymer UN: 2211 MATERIAL USE: Shape molding CAS REGISTRY NO: 9003-53-6 CAS NAME: Benzene, ethenyl-, homopolymer FORMULA: (C8 H8)x DOMESTIC SUBSTANCE LIST: Listed	HAZARD RATING: 0=Minimal 3=Serious 1=Slight 4= Severe 2=Moderate	HEALTH FIRE REACTIVITY	1 3 0
CONTACT: Huntsman Chemical Company of Canada, Inc. 24 Bellevue Street, Mansonville Quebec JOE 1X0 (514) 292-3333 CANUTEC: (613) 996-6666			

2 - INGREDIENTS		
HAZARDOUS COMPONENTS:	CAS REGISTRY NO:	APPROX. WEIGHT PERCENTAGE:
Pentanes	109-66-0	7% max.
NON-HAZARDOUS COMPONENTS		
Polystyrene	9003-53-6	92.6% min.
External & Internal Lubricants	N/A	0.4% max.
Surfactants	N/A	0.2% max

3 - PHYSICAL DATA	
FORM: Solid beads (0.01 to 0.1" diameter) COLOR: White ODOR: Very slight hydrocarbon odor BOILING POINT: N/A MELTING POINT: Softens and expands at 200°F to 215°F SPECIFIC GRAVITY (Water=1): 1.14 to 1.18	VAPOR PRESSURE: N/A VOLATILES BY VOLUME: 10% VAPOR DENSITY (AIR=1): N/A EVAPORATION RATE: None SOLUBILITY IN WATER: Insoluble PH: N/A

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4 - FIRE & EXPLOSION DATA

FLASH PT. AND METHOD USED: 675°F
(ASTM D-1929)

FLAMMABILITY LIMITS IN AIR (For Pentane):
Lower = 1.5%; Upper = 7.8%

SPECIAL FIRE FIGHTING INSTRUCTIONS:

Use self-contained breathing apparatus respirator and approved personal protective clothing.

EXTINGUISHING MEDIA: Water fog, carbon dioxide foam, and dry chemical

AUTO-IGNITION TEMPERATURE: 880° F

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire gives off dense black smoke and acid gases. Electrostatic discharge can be a source of ignition to accumulated pentane vapors exceeding the L.E.L. of 1.5% (15,000 ppm). Pentane vapors may be emitted from newly opened containers or when the product is heated. If ignited there could be a very high rate of flame propagation.

5 - REACTIVITY DATA

STABILITY (CONDITIONS TO AVOID): Stable product - avoid small or large fires and high temperature

HAZARDOUS DECOMPOSITION: Carbon monoxide, acid gases, water, carbon dioxide, carbon

INCOMPATIBILITY (MATERIALS TO AVOID):

Hydrocarbons, esters, insecticides, amines and aldehydes

HAZARDOUS POLYMERIZATION: None

6 - HEALTH HAZARDS

PRINCIPAL HEALTH HAZARDS & SIGNS AND SYMPTOMS OF EXPOSURE:

GENERAL: Normal handling would never expose operating personnel to pentane levels above published health levels.

EYE CONTACT: None

INHALATION: Normal handling would never exceed safe pentane health limits. Very high levels could produce a narcotic effect. Studies have shown that exposures to pentane for 10 minutes at 5000 ppm produced no symptoms.

SKIN CONTACT: None

INGESTION: Biologically inert.

Extremely unlikely route of entry.

SYSTEMIC & OTHER EFFECTS: None

MEDICAL CONDITIONS AGGRAVATED: None

EXPOSURE LIMITS (For pentane):

PEL (OSHA): 1000 ppm 8-hour TWA

TLV (ACGIH): 600 ppm TWA, 1800 mg/m

STEL; 750 ppm, 2250 mg/m

SAFETY PRECAUTIONS: Use positive ventilation.

Do not smoke or eat in process area. Avoid spark producing equipment, material handling devices, open flames, and high temperatures. Provide and assure proper electrostatic bonding and grounding of process handling equipment.

TOXICITY DATA:

ORAL: Pentane oral acute inhalation LC50 is greater than 200 mg/1.

INHALATION: LC50 = 130000 ppm

DERMAL: None

CARCINOGENICITY: PENTANE: NTP

Listed No

IARC No

OSHA Regulated: No

ACGIH: No

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7 - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: Use approved air purifying respirators with organic vapor cartridge for exposure above health limits. See also Section 4.

SKIN PROTECTION: None under normal conditions.

EYE PROTECTION: ANSI - approved safety glasses with side shields

GENERAL CONTROL MEASURES: Use positive ventilation and provide electrostatic bonding and grounding of equipment.

ENVIRONMENTAL HAZARDS: Sewer/waterway obstruction; Fish may eat beads and obstruct their digestive tract.

SPILL, LEAK, OR RELEASE PROCEDURES: Stop leak, contain spill, obstruct exit to sewers, waterways, and sources of ignition. Collect into non-conducting containers.

REPORTABLE QUANTITY: TDG = 50 kg

DISPOSAL METHOD: Recycle, incinerate, or land fill per local, provincial and federal regulations.

8 - FIRST AID MEASURES

EYE: Irrigate with water to wash out any particles.

INHALATION: (Pentane vapors): Remove to fresh air. Provide CPR if breathing has stopped. Notify medical personnel.

SKIN: Wash with soap and water to remove particles.

GENERAL ADVICE: Use positive ventilation. Do not smoke or eat in process area.

9 - TRANSPORTATION

TRANSPORTATION REQUIREMENTS:

TDG = Class 9.1

PACKING GROUP = III

PIN NUMBER: UN2211

SHIPPING NAME: Polymeric Beads, Expandable

10 - PREPARATION DATE OF MSDS

PREPARED BY: Huntsman Chemical Company of Canada, Inc.

24 Bellevue Street, Mansonville

Quebec, JOE 1X0

PHONE NUMBER: (514) 292-3333

DATE: March 15, 1996

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