

PPV

MATERIAL SAFETY DATA SHEET

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Emergency Telephone Numbers: Chemtrec 800-424-9300, 973-887-1999, 1-800-457-6715, 973-539-5631

PRODUCT NAME: PORPATCH

CHEMICAL NAME: Isocyanate Prepolymer paste/gel based on MDI

CHEMICAL FAMILY: Solution Aromatic Isocyanates (26447-40-5)

FORMULA: Mixture/Paste/Gel

T.S.C.A. STATUS: Ok

TRADE NAMES/SYNONYMS: None

II. HAZARDOUS INGREDIENTS

Diphenylmethane Diisocyanate(MDI) CAS# 26447-40-5	63.0%	2,4,7,9-Tetramethyl-5-Decyne-4,7 Diol (TMDD) Cas#126-86-3	1.5%
Naptha Petroleum CAS# 64742-94-5	26.0%		
Aliphatic Hydrocarbon Cas# 8052-41-3	3.5%	Current TLV: ACGIH: 0.005ppm(0.2 mg/m ³)	
		Ceiling value OSHA (PEL): Same	

III. PHYSICAL DATA

BOILING POINT: 232 Degrees F	SPECIFIC GRAVITY: (Water =1) 1.6
VAPOR PRESSURE: 38mm Hg	% VOLATILE BY VOLUME: 19%
VAPOR DENSITY: (Air = 1) 4.5	EVAPORATION RATE (Ether = 1): For solvent, 4.5
SOLUBILITY IN WATER: Nil	COLOR: Black or White
ODOR: Light Aromatic	VOLATILE ORGANICS: 2.23 grams per liter
VISCOSITY: Range @ 77°F/25°C: 2200-2400 CPS	
	LBS. PER GALLON: 8.9

IV. FIRE & EXPLOSION HAZARD DATA

FLASH POINT (Method used): TCC 150°F / 66°C

EXTINGUISHING MEDIA: Dry chemical (e.g.monoammonium phosphate, potassium sulfate, and potassium chloride, carbon dioxide, high expansion (proteninic) chemical foam, water spray for large fires.

SPECIAL FIRE FIGHTING PROCEDURES/USUAL FIRE OR EXPLOSION HAZARDS: Self-contained breathing apparatus should be worn by firefighters. During a fire, MDI vapors and other irritating, toxic gases may be generated by thermal decomposition (as for all paints, see section VIII). At temperatures greater than 400°F (204°C), polymeric MDI can polymerize and decompose. Use cold water to cool fire-exposed containers.

HAZARD CLASS: B HEALTH: 3 FIRE: 2 REACTIVITY: 1 FLAMMABLE LIMITS LEL: 1% FLAMMABLE LIMITS UEL: 7.1%

V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: For isocyanates, 0.02ppm; for solvent, 200ppm

EFFECTS OF OVEREXPOSURE: Eyes-irritation; tearing, skin discoloration-drying; breathing-irritation, dizziness(for solvent). For isocyanates, coughing, irritation of mucous membranes and respiratory tract.

SKIN EFFECTS: Slight to moderate irritation(MDI); skin sensitizer in guinea pigs(MDI). No evidence has been developed to indicate that MDI or PORPATCH is carcinogenic, teratogenic or that either one causes reproductive effects in animals or humans. MDI has been reported by NIOSH to be mutagenic to Salmonella Typhimurium bacteria in the presence of a mammalian liver activation system. There is not full agreement in the scientific community on the significance of these Ames test results and their relationship to human safety in assessing any risk of cancer in man. A commitment has been made to perform an animal life-time inhalation study on polymeric MDI.

HUMAN EFFECTS OF OVEREXPOSURE: INHALATION-Inhalation of MDI vapors or aerosols in concentrations above 0.02ppm can produce irritation of the mucous membranes in the respiratory tract, running nose, sore throat, productive cough and a reduction of lung function. Extensive exposures to concentrations well above the TLV could lead to bronchitis, bronchial spasm and pulmonary edema. These effects are reversible. However, due to low volatility, high exposures are not anticipated except if the material is overheated or sprayed as an aerosol into the air. Symptoms could be immediate or delayed and include chest tightness, respiratory distress or asthmatic attack.

SKIN: Polymeric MDI reacts with skin protein and tissue moisture and can cause localized irritation as well as discoloration. Prolonged contact could produce reddening, swelling, or blistering and, in some individuals, skin sensitization resulting in dermatitis. EYES: Liquid, vapors, or aerosols are irritating to the eyes and can cause lachrymation (tearing effect). Corneal damage can occur; however, indications are that the damage is reversible and does not result in permanent injury. INGESTION: Ingestion could result in irritation and some corrosive action in the mouth, stomach tissue and digestive tract. However, it is not considered a common occupational route of exposure.

VI. EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: Flush with clean, lukewarm water(low pressure) for at least 15 min., occasionally lifting eyelids; obtain medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before re-use.

VII. PROTECTION RECOMMENDATIONS

EYE PROTECTION: Safety glasses with side shields, splash goggles or face shield. Contact lenses should not be worn. SKIN PROTECTION: Chemical-resistant gloves. If skin creams are used, keep the area covered to a minimum. RESPIRATORY PROTECTION: Use respirator that is recommended or approved for use with aromatic solvent. Observe OSHA regulations for respirator use 29 CFR, 1910.134. VENTILATION: Ventilation as required to maintain air concentrations below TLV's.

VIII. REACTIVITY DATA

STABILITY: Stable under normal conditions. POLYMERIZATION: None under normal conditions. CONDITIONS TO AVOID: Temperatures below 32 degrees F (0 degrees C) or above 122 degrees F (50 degrees C). Avoid contact with water, alcohols, amines, strong bases, metal compounds or surface active materials. HAZARDOUS DECOMPOSITION PRODUCTS: By fire, carbon dioxide, CO, oxides of nitrogen, traces of HCN, MDI; due to paste composition, hazardous decomposition is practically nil.

IX. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Spills or leaks cannot occur with PorPatch due to its high solids paste composition.

X. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH/MSHA approved respirator. EYE PROTECTION: Goggles or face mask. VENTILATION: Use in well-ventilated areas only. Have adequate general exhaust. PROTECTIVE GLOVES: Latex protective gloves are adequate.

XI. SPECIAL PRECAUTIONS & STORAGE DATA

STORAGE TEMPERATURE (min/max): 32 degrees F (0 degrees C)/122 degrees F (50 degrees C)

AVERAGE SHELF LIFE: 6 months @ 77 degrees F (25 degrees C)

SPECIAL SENSITIVITY(heat, light, moisture): If container of material is exposed to heat, container may pressurize slightly and/or harden. Do not reseal if moisture contamination is suspected.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in tightly closed container and protect from moisture and foreign materials. At maximum storage temperatures noted, material may slowly cure without hazard. Ideal storage temperature range is 50-81 degrees F (10 - 27 degrees C).