

PU-MEMBRANE B | SAFETY DATA SHEET (SDS)

SECTION 1 - IDENTIFICATION

Product identifier	PU-MEMBRANE B
Other means of identification	None
Recommended use and restrictions on use	Construction product / Refer to technical information
Initial supplier identifier	PUREPOXY 301, rue Omer-DeSerres #105, Blainville, Quebec, CANADA J7C 0K2 Phone - 438-492-4450
Emergency telephone number/restriction on use	Canada - CANUTEC 24 hour number 613-996-6666

SECTION 2 - HAZARD IDENTIFICATION

Classification of hazardous product (name of the category or subcategory of the hazard class)	Acute Toxicity, Inhalation-mist (Category 4) Skin Sensitization (Category 1B) Skin Corrosion/irritation (Category 2) Serious eye damage/irritation (Category 2B) Respiratory sensitization (Category 1) Carcinogenicity (Category 2) Specific target organ toxicity-single exposure (Category 3- respiratory tract irritation) Specific target organ toxicity-repeated exposure (Category 2- by inhalation)
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Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)



H320 Causes eye irritation.
H315 Causes skin irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs (olfactory) through prolonged or repeated exposure (inhalation).

P201 Obtain special instructions before use. **P202** Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves. **P271** Use only outdoors or in a well-ventilated area. **P260** Do not breathe dust/gas/mist/vapours.
P261 Avoid breathing mist. **P284** In case of inadequate ventilation wear respiratory protection. **P272** Contaminated work clothing should not be allowed out of the workplace. **P264** Wash with plenty of water and soap thoroughly after handling. **P312** Call a POISON CENTER/doctor if you feel unwell. **P305 + P351 + P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. **P304 + P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing. **P308 + P311** IF exposed or concerned: Call a POISON CENTER or doctor/physician. **P314** Get medical advice/attention if you feel unwell. **P303 + P361** IF ON SKIN (or hair): Wash with plenty of soap and water. **P333 + P311** If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician. **P332 + P313** If skin irritation occurs: Get medical advice/attention. **P362 + P364** Take off contaminated clothing and wash before reuse. **P337 + P311** If eye irritation occurs: Call a POISON CENTER or doctor/physician. **P403 + P233** Store in a well-ventilated place. Keep container tightly closed. **P405** Store locked up.
P501 Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Other Hazards Known None

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name (common name/synonyms)	CAS NUMBER or other	Concentration (%)
Methylene bisphenyl isocyanate (MDI)	101-68-8	25 - 50
p-MDI	9016-87-9	50 - 75
Methylenediphenyl diisocyanate	26447-40-5	3 - 7
1,3-diazetidone-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]-	17589-24-1	1 - 3
Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl)	57636-09-6	1 - 3

All ingredients are listed according to OSHA (29 CFR).

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) considered trade secret(s).

SECTION 4 - FIRST AID MEASURES

Inhalation	IF INHALED: Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.
Ingestion	IF SWALLOWED: Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.
Skin contact	IF ON SKIN (or hair): Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.
Eye contact	IF IN EYES: In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.
Most important symptoms and effects (acute and delayed)	Prolonged or repeated contact may cause skin irritation with local redness. May cause eye irritation. Corneal injury is unlikely.
Indication of immediate medical attention/special treatment	In all cases, call a doctor. Do not forget this document.

SECTION 5 - FIREFIGHTING MEASURES

Specific hazards of the hazardous product (hazardous combustion products)	In case of fire: water spray, dry powder, carbon dioxide, foam
Suitable and unsuitable extinguishing media	In case of fire: water spray, dry powder, carbon dioxide, foam.
Special protective equipment and precautions for fire-fighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing. Avoid contact with this material during fire-fighting operations. If contact is likely, change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Absorb spillage to prevent material-damage. Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).
Methods and materials for containment and cleaning up	Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers for leaks before handling. Label containers appropriately. Ensure proper ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters (biological limit values or exposure limit values and source of those values)

CAS 101-68-8	OSHA PEL	CLV 0.02ppm	0.2 mg/m ³ ; ACGIH TLV TWA value	0.005ppm
CAS 9016-87-9	OSHA PEL	CLV 0.02ppm	0.2 mg/m ³ ; ACGIH TLV TWA value	0.005ppm
CAS 26447-40-5	No exposure limits noted for the ingredient(s)			
CAS 17589-24-1	No exposure limits noted for the ingredient(s)			
CAS 57636-09-6	OSHA PEL	CLV 0.02ppm	0.2 mg/m ³ ; ACGIH TLV TWA value	0.005ppm

Appropriate engineering controls

Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Individual protection measures/personal protective equipment

Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. Chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact, must be worn during all handling operations. Wear protective chemical splash goggles to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance / color	Liquid, Dark amber	Vapour pressure	0.00016 mmHg (68°F/20°C)
Odour	Characteristic	Vapour density	Not applicable
Odour threshold	Not available	Relative density	1.22 g/ml
pH	Not available	Solubility	Reacts with water
Melting point / Freezing point	37.4°F (3°C)	Partition coefficient of n-octanol/water	Not applicable
Initial boiling point/ranges	392°F (200°C)	Auto-ignition temperature	> 482°F (250°C)
Flash point	428°F (220°C)	Decomposition temperature	Not available
Evaporation rate	Not available	Viscosity	350 cps
Flammability (solid, gas)	Not flammable	VOC	Not available
Upper/Lower flammability or explosive limits	Not available	Other	None know

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	This product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability	Stable under the recommended storage and handling conditions prescribed.
Possibility of hazardous reactions	Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of substance/product with subsequent loss in strength.
Conditions to avoid (static discharge, shock or vibration)	None known
Incompatible materials	Oxidizing materials; Acids; etc.
Hazardous decomposition products	None known

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)	Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.
Symptoms related to the physical, chemical and toxicological characteristics	Assessment of acute toxicity: Inhalation of vapour may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation. Headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic. Assessment of chronic toxicity: The substance may cause damage to the olfactory epithelium after repeated inhalation. The substance may cause damage to the lung after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.
Delayed and immediate effects (chronic effects from short-term and long-term exposure)	Skin Sensitization – Possible; Respiratory Sensitization – Possible; Germ Cell Mutagenicity – No data available; Carcinogenicity – No data available; Reproductive Toxicity – No data available; Specific Target Organ Toxicity — Single Exposure – Causes temporary irritation of the respiratory tract; Specific Target Organ Toxicity - Repeated Exposure – The substance may cause damage to the olfactory epithelium after repeated inhalation; Aspiration Hazard – No data available; Health Hazards Not Otherwise Classified – No data available.
Numerical measures of toxicity (ATE; LD ₅₀ & LC ₅₀)	CAS 101-68-8 LD ₅₀ , Oral- Rat - >2000 mg/kg; LC ₅₀ , Inhalation - Rat – 2.0 mg/l LD ₅₀ , Dermal- Rabbit - >9400 mg/kg CAS 9016-87-9 No data available CAS 26447-40-5 No data available CAS 17589-24-1 No data available CAS 57636-09-6 No data available

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial information)	No data available
Persistence and degradability	Poorly biodegradable. The product is unstable in water. In contact with water the substance will hydrolyse slowly.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Information on safe handling for disposal/methods of disposal/contaminated packaging

Dispose of contents/container into safe container in accordance with local, regional or national regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations: NOT REGULATED

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime): NOT REGULATED

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air): NOT REGULATED

Special Precautions (transport/conveyance): None

Environmental hazards (IMDG or other): None

Bulk transport (usually more than 450L in capacity): Possible

SECTION 15 - REGULATORY INFORMATION

Safety/health Canadian regulations specifics	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
Environmental Canadian regulations specifics	Refer to Section 3 for ingredient(s) of the DSL
Safety/health/environmental outside regulations specifics	United States OSHA information: This product is regulated according to OSHA (29 CFR).
Bioaccumulative potential	United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14. United States TCSA information: Refer to the ingredients listed in Section 3.
National Fire Protection Association (NFPA)	HEALTH: 1 FLAMMABILITY: 0 INSTABILITY: 1 SPECIAL HAZARDS: Refer to Section 2 & 3. HAZARD SCALE: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION 16 - OTHER INFORMATION

Date of the latest revision of the safety data sheet	February 25, 2020 version 5
Corrections	SDS Template modifications
References	Safety Data Sheets from manufacturer/supplier
Abbreviations	ACGIH American Conference of Governmental Industrial Hygienists ATE Acute toxicity estimate CAS Chemical Abstract Service DSL Domestic Substance List IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods Code LC Lethal concentration LD Lethal Dosage NIOSH National Institute for Occupational Safety and Health NTP National Toxicology Program (U.S.A.) OSHA Occupational Safety and Health Administration (U.S.A.) PEL Permissible Exposure Limit STEL Short-term Exposure Limit TDG Transport of dangerous goods in Canada TLV Threshold Limit Value TSCA Toxic Substances Control Act TWA Time Weighted Average WHMIS Workplace Hazardous Materials Information System

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.