



PERMAPRO

POLYURETHANE CONCRETE ADHESIVE



Material Safety Data Sheets (MSDS)

Section 1 – Product Identification

Company Identification	.....	Groupe Permacon Group. 8145 Bombardier, Ville d'Anjou (Quebec) Canada H1J 1A5
24 hour Emergency Phone	.....	CHEMTREC – 1 800 424-9300
Product Use	.....	POLYURETHANE CONCRETE & STONE ADHESIVE
Hazard Rating		
Health	.....	3
Flammability	.....	1
Reactivity	.....	0

Section 2 – Composition – Ingredients Information

Ingredient	% By WGT	CAS #	PPM MG / CU.M.	
Diphenylmethane	15	9016-87-9 MFR	0.0200	0.2000
Di-Isocyanate Oligomers				
Polyurethane Prepolymer		TSRNHM2801	None established	
4,4'-(Oxydi-2,1-Ethanediy)l		6425-39-4	None established	
Bismorpholine				
Alumina	< 1	1344-28-1 TLV-TWA	10	
Surface Treated Silica		TSRNHM2064 TLV-TWA OSHA-PEL	10 6	
Additive		TSRN9415P01 TLV-TWA OSHA-PEL	2 2	

Section 3 – Hazard Identification - Effects of short term overexposure

Swallowing	.....	May be fatal if swallowed. Can cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.
Inhalation	.....	WARNING vapor and spray mist harmful. Overexposure may cause lung damage. May cause lung irritation and allergic respiratory reaction. Effects may be permanent. May cause respiratory sensitization (potential for allergic reaction). May cause respiratory irritation.
Eye	.....	May cause severe eye irritation.
Skin	.....	Primary skin irritant. May cause skin sensitization (allergic reaction). May cause severe burns unless washed off immediately.
Effects of repeated overexposure	.....	Repeated exposure to isocyanates may result in skin and respiratory sensitization in some individuals. Respiratory sensitivity results in asthma-like symptoms on subsequent exposure at concentrations even below the TLV.
Significant laboratory data with possible relevance to human health.	None currently known

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Section 4 – First-aid Measures

Swallowing	If swallowed call Poison Control Center, Hospital Emergency Room, or Physician immediately.
Inhalation	.....	Remove to fresh air immediately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immediately.
Eye	.....	Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention immediately.
Skin	.....	Remove contaminated clothing. Wash affected area with soap and water. Obtain medical attention if irritation persists.
Notes to Physician	.....	Any treatment that might be required for overexposure should be directed at the control of symptoms and the clinical conditions.

Section 5 – Fire-Fighting Measures

NFPA Flammability Classification	.....	Not Applicable
Flashpoint	.....	Not Applicable
Extinguishing Media	.....	Use NFPA Class B Fire extinguishers (carbon dioxide, all purpose dry chemical or alcohol foam) designed to extinguish flammable liquid fires. Polymer foam is preferred for large fires.
Unusual fire and explosion hazards	.....	During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
Special fire fighting procedures	.....	Firefighters should wear self-contained breathing apparatus.

Section 6 – Accidental Release Measures

Steps to be taken if material is released or spilled	.....	The use of a NIOSH/MSHA approved, TC19C, air-supplied breathing apparatus may be required. Consult with a qualified occupational health and /or safety professional. Contain spill, cover liquid with inert absorbent material. Place in open container. Remove to a well ventilated area. Treat with dilute ammonia solution (8%). (Heat may be liberated). Ventilate for 24hrs. Dispose of properly. Refer to Section 8 and don respirators, eye, hand, and body protection appropriate for the size of the spill and the exposures encountered.
Waste disposal	.....	Dispose in accordance with federal state, provincial state and local regulations.
Environmental hazards	.....	None known

Section 7 – Handling and Storage

Precautions to be taken in handling and storage	.....	Prolonged heating over 160 F (71 C) or storage below 75 deg. F should be avoided. Protect from moisture contamination which may cause an exothermic generation of carbon dioxide and a dangerous pressure buildup.
Other precautions	Do not take internally. Close container after each use. Avoid skin contact. This product should not be used by persons who have had chronic (long term) breathing problems or reactions to isocyanates. Do not breathe vapor spray or mist. Do not get in eyes, on skin, or clothing. Wash thoroughly after handling. Keep away from heat sparks or flame. Use only with adequate ventilation. Wash hands and face thoroughly before eating or drinking. Empty containers must not be washed and re-used for any purpose. Never use pressure to empty. Drum is not a pressure vessel.

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Section 8 – Exposure Controls

Respiratory protection	The absence of heat or aerosol generation reduces the likelihood of the need for respiratory protection. Since conditions of use vary, it is the responsibility of each user of this product to evaluate potential exposures within their facility. If such conditions indicate the need for respiratory protection, proper selection depends upon many factors including duration and level of exposure and conditions of use. In general, exposure to the substances listed in Section II of this MSDS may not require the use of respiratory protection if exposures are maintained below engineering controls. One example of such controls would be the use of properly designed ventilation systems. If a respirator is to be worn, a NIOSH approved respirator with an appropriate protection factor should be provided. If exposures are determined to be excessive, or if the use of respirators is desired a positive pressure supplied air respirator will provide adequate protection. The use of air purifying respirators may also be suitable in some situations. Please refer to the American Industrial Hygiene Association Journal J. 47(7):393-398 (1986). Consult a qualified occupational health and safety professional regarding conditions of use within your facility. Refer to OSHA 29 CFR 1910.134 "Respiratory Protection" and Respiratory Protection: A Manual And Guideline, American Industrial Hygiene Association."
Ventilation	.....	Provide general dilution and local exhaust ventilation in sufficient volume and pattern to keep concentrations of hazardous ingredients listed in Section II below the lowest exposure limit stated. Remove decomposition products that are generated when welding, cutting, or brazing objects coated with this product. Refer to "Industrial Ventilation - A Manual of Recommended Practice " ACGIH .
Hand protection	.....	Butyl rubber. Nitrile Gloves. Wear appropriate impermeable gloves.
Eye protection	.....	Wear safety glasses meeting the specifications of ANSI Z87.1 where no contact with the eye is anticipated. Chemical safety goggles meeting the specifications of ANSI Z87.1 should be worn whenever there is a possibility of splashing or other contact with the eyes.
Other protective equipment	.....	Eyewash facility, safety shower. As required to prevent skin contact.

Section 9 – Physical and Chemical Properties

Boiling Range	.....	Not applicable			
Vapor Density	.....	Not applicable	% Volatile by volume	0	
Evaporation rate	.....	Not applicable			
		VOC	.00 lb/gal less water& NPRS*	0 g/l less water	Calculated
Weight LB./GAL.	.....	11.6 / Specific Gravity	1.4		
		VOC	.00 lb/gal solids	0 g/l solids	Calculated

All Physical data determined at 68 DEG. F. (20 DEG. C.) 760 mm Hg

* Negligibly Photochemically Reactive Materials

Section 10 – Stability and Reactivity

Stability	.....	Normally stable.
Conditions to avoid	.....	None known
Incompatibility (materials to avoid)	.....	Water
Hazardous decomposition products	.....	Burning, including when heated by welding or cutting, will produce smoke, carbon monoxide and carbon dioxide. In addition, oxides of nitrogen, hydrogen cyanide, may be generated. The reaction of isocyanates with water may produce carbon dioxide gas which may result in container pressurization.
Hazardous polymerization	Will not occur.
Conditions to avoid	Avoid high temperatures and high humidity.

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Section 11 – Toxicological Information

No information available.

Section 12 – Biological Information

No information available.

Section 13 – Disposal considerations

See Section 6.

Section 14 – Transport Information

Item :	.....	Polyurethane concrete adhesive	Desc/size: Urethane Mastic	
Mode	.....	Proper shipping name	Class I.D.#	PKG GRP
IATA		(Air)	Adhesives, not regulated	
DOT (HM-181)		(Domestic surface)	Adhesives, not regulated	
IMDG CODE		(Ocean)	Adhesives, not regulated	

NOTE! The assignment of Proper Shipping Names is in part a function of the size of the product container and the transport mode. For example, the Proper Shipping Name for a bulk container can differ significantly from the Proper Shipping Name for the same product packaged in a non-bulk container. This can also be true for products shipped via different modes of transportation (i.e. ground, air, ocean). The descriptions provided above are intended to provide some guidance. However, these descriptions may not apply to your package size or mode of shipment. The U.S. Code of Federal Regulations, 49 CFR - Transportation, regulations, and the policies established by some transporters, require that the shipper properly classify and assign a Proper Shipping Name, and label, mark and package the material properly. Therefore, the user of this information is cautioned to consult with applicable regulations, and with qualified advisors prior to the repackaging and or reshipment of this or other any product which contain this product.

Section 15 – Regulatory Information

All ingredients in this product are listed on the US TSCA Inventory.

Ingredient	Cas no.	Detail Inventory List Information
Diphenylmethane	9016-87-9	TSCA (8d)
Di-Isocyanate Oligomers		TSCA (8d term)
		DSL
Polyurethane Prepolymer	TSRNHM2801	No information available.
4,4'-(Oxydi-2,1-Ethanediy)	6425-39-4	DSL
Bismorpholine		
Alumina	1344-28-1	No information available.
Surface treated	TSRNHM2064	TSCA (8a)
Silica		TSCA (8a Pair)
		TSCA (8d)
		DSL
Additive	TSRN9415P01	TSCA
		DSL

Detail inventory list description

TSCA	Toxic Substances Control Act
(8a)	Toxic Substances subject to Reporting rules on production
(8a PAIR)	Preliminary Assessment Information Rules
(8d)	Health and Safety Reporting Rules
(8d term)	Health and Safety Reporting Rules termination
DSL	Canadian Domestic Substance List

Section 16 – Other Information - Disclaimer

The data contained herein are furnished for information only and are believed to be reliable. However, Groupe Permacon Group does not assume responsibility for any results obtained by persons over whose methods Groupe Permacon Group has no control. It is the user's responsibility to determine the suitability of Groupe Permacon Group or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of Groupe Permacon Group products. In light of the foregoing, Groupe Permacon Group specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Groupe Permacon Group products. Groupe Permacon Group further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Section 17 – Other Information

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