



Pro Form Products Ltd.
604 McGeachie Drive
Milton, Ontario, L9T 3Y5
Canada
905-878-4990

PRODUCT: 17030 URETHANE STRUCTURAL ADHESIVE

SECTION 01: IDENTIFICATION

Product identifier..... 17030 URETHANE STRUCTURAL ADHESIVE
Initial supplier identifier..... Pro Form Products Ltd.
604 McGeachie Drive
Milton, Ontario L9T3Y5
Tel (905) 878-4990 Fax (905) 878-1189
24 hour emergency number:..... For transportation emergencies (in Canada) call CANUTEC 1-888-226-8832 (CAN-UTEC);
IN THE UNITED STATES CALL CHEMTREC 1-800-424-9300.
** For medical emergencies contact your local poison control centre **.
Recommended use and restrictions on .. Adhesive applications.
use
Chemical family..... Epoxy adhesives.
Hazard rating
NFPA rating..... Health: 3 Fire: 1 Reactivity: 0.
HMIS..... H: 3 F: 1 R: 0.

SECTION 02: HAZARD IDENTIFICATION



Signal Word..... DANGER.
Hazard Classification..... Skin Irritant — Category 2. Skin Sensitizer — Category 1. Eye Irritant 2. Specific Target Organ Toxicity — Repeated Exposure — Category 1. Respiratory Sensitizer — Category 1.
Hazard Description..... H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H372 Causes damage to the liver and kidneys through prolonged or repeated exposure. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Prevention..... P201 Obtain special instructions before use. P202 Do not handle this product until all safety instructions have been read and understood. P260 Do not breathe mist, vapours, or spray. P261 Avoid breathing mists, vapours and sprays. P264 Wash thoroughly after handling. P270 Do not eat drink or smoke while using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves and eye protection. P284 In case of inadequate ventilation wear respiratory protection.
Response P302 + P352 - If on skin: wash with plenty of water. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until medical help arrives. P321 - For specific treatment see section 4 on this SDS. P333 + P313 If skin irritation or rash occurs, get medical advice/attention. P337 + P313 - If eye irritation persists get medical attention. P342 + P311 If experiencing respiratory symptoms; call poison center or doctor. P362 + P364 - Take off contaminated clothing and wash before reuse.
Storage..... P405 Store locked up.
Disposal..... P501 Dispose all unused, waste or empty containers in accordance with local regulations.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
PART A:		
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	101-68-8	30-40
Talc	14807-96-6	10-15
2,4-Diphenylmethane diisocyanate (MDI)	5873-54-1	0.5-1
PART B:		
PIPERAZINE	110-85-0	0.5-1

PRODUCT: 17030 URETHANE STRUCTURAL ADHESIVE**SECTION 04: FIRST-AID MEASURES**

Eye contact.....	In case of contact, immediately flush eyes, keeping eyelids open, with plenty of water for at least 15 minutes. Check for and remove any contact lenses, if safe and easy to do so. Obtain medical attention.
Skin contact.....	Immediately flush skin with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse. Do not peel solidified product off the skin. If irritation persists, seek medical attention.
Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen, obtain medical attention.
Ingestion.....	Do not induce vomiting. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs have victim lean forward with head down to prevent aspiration of fluid into the lungs. Get medical attention.
Additional information.....	Eye: stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapours have produced reversible corneal epithelial edema impairing vision. Skin: this compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. Respiratory: this compound is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a skin or pulmonary sensitization reaction to this material should be removed from exposure to any isocyanate. In the event of an incident involving this product ensure that medical authorities are provided a copy of this safety data sheet. In all cases, if irritation persists seek medical attention.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable and unsuitable extinguishing media	Dry chemical. Carbon dioxide. In cases of larger fires, water spray should be used.
Specific hazards arising from the hazardous product, such as the nature of any hazardous combustion products	Oxides of carbon (CO, CO ₂). Oxides of nitrogen. Phenols. Formaldehyde. Other potentially toxic fumes.
Special protective equipment and precautions for fire-fighters	Firefighter should be equipped with self-contained breathing apparatus and full protective clothing to protect against potentially toxic and irritating fumes. During a fire, isocyanate vapours and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture. Heat will cause pressure buildup and may cause explosive rupture.
Unusual fire / explosion hazards.....	Reaction between water or foam and hot MDI can be vigorous.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Leak/spill.....	Isolate area and keep unauthorized people away. Do not walk through spilled material. Wear recommended protective equipment. Ventilate. Open windows and doors to allow air circulation. Dike area to prevent spreading. The use of absorbent socks or spill pillows may be required. Stop leak if safe to do so. Prevent runoff into drains, sewers, and other waterways. Use an aqueous solution of ammonia or other suitable isocyanate neutralizing solution to clean up any unreacted prepolymer residue. Do not use neutralizing solution on large spills as heat may be generated. Use a Swype test kit to test for residual isocyanates.
Major spills.....	If temporary control of isocyanate vapour is required, a blanket of protein foam may be placed over spill. If transportation spill occurs in United States, call Chemtrec 1-800-424-9300. If transportation spill occurs in Canada, call Canutec at (613) 996-6666. Large quantities may be pumped into closed, but not sealed, containers for disposal.
Clean up.....	Decontaminate spill area with decontamination solution. Area can then be washed with soap and water. Use a heat gun and a scraper to remove cured adhesive. Prior to using a heat gun, ensure that the surface can withstand the heat generated by the gun.

SECTION 07: HANDLING AND STORAGE

Precautions for safe handling.....	Avoid skin and eye contact. Do not breathe vapours, mist or dust. Use adequate ventilation. Decomposition products can be highly toxic and irritating. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapour or spray mist. Warning properties (irritation of the eyes, nose and throat or odour) are not adequate to prevent chronic overexposure from inhalation. Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Wear respiratory protection if material is heated, sprayed, used in confined space, or if exposure limit is exceeded. Employee education and training are important.
Conditions for safe storage, including any incompatibilities	Store in tightly closed containers to prevent moisture contamination. Store in a cool, dry and well ventilated area. Do not reseal if contamination is suspected. Exposure to vapours of heated isocyanates can be extremely dangerous.

PRODUCT: 17030 URETHANE STRUCTURAL ADHESIVE

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	0.005 ppm	Not established	0.005 ppm TWA	0.005 ppm AB OEL TWA	0.05 mg/m3
Talc	2 mg/m3 CA ON: 2mg/kg (TWA)	Not established	2 mg/m3 TWA	Not established	Not established
2,4-Diphenylmethane diisocyanate (MDI)	Not established	Not established	Not established	Not established	Not established
PIPERAZINE	Not established	Not established	Not established	Not established	Not established
Eye/type.....	Chemical safety goggles. Chemical safety goggles and full faceshield if a splash hazard exists. Contact lenses should not be worn when working with this chemical.				
Respiratory/type.....	In case of insufficient ventilation, wear suitable respiratory equipment. An approved air purifying respirator with organic vapour cartridges and particulate prefilter can be used to minimize exposure. Diisocyanates have poor warning properties. An air-purifying respirator with an organic vapour cartridge and an N95 filter can be used safely and effectively to reduce exposure, provided that appropriate cartridge change schedules are developed to ensure that cartridges are changed before breakthrough occurs. The employer is required to select the appropriate respirator for each situation and must consider the potential exposure to chemicals in addition to diisocyanates. Protection provided by air-purifying respirators is limited. The use of a positive pressure air supplied respirator is mandatory when airborne concentrations are not known or airborne solvent levels are 10 times the appropriate exposure limit or spraying is performed in a confined space or with limited ventilation. Use NIOSH approved respirator or equipment. Do not exceed the use limits of the respirator.				
Gloves/ type.....	Chemical resistant gloves: butyl rubber, nitrile rubber, neoprene, PVC. Practice good hygiene, wash thoroughly before handling any food.				
Clothing/type.....	Wear adequate protective clothes. Wear long sleeves and trousers to prevent dermal exposure.				
Footwear/type.....	Safety boots per local regulations.				
Other/type.....	Eye wash facility and emergency shower should be in close proximity. Educate and train employees on the safe use and handling of the product.				
Appropriate engineering controls.....	Mechanical ventilation systems used to ventilate corrosive storage or process areas must be designed with components that are corrosion resistant. Ventilate adequately. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. Vent work area to ensure airborne concentrations are below the current occupational exposure limits. Avoid breathing mists; if general ventilation or local exhaust is inadequate, persons exposed to mists should wear approved breathing devices.				

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state.....	Part A: Viscous liquid.	Part B: Liquid.
Colour.....	Part A: Beige.	Part B: No data.
Odour.....	No data.	
Odour threshold (ppm).....	Part A: Not available.	Part B: . No data.
Vapour pressure (mm Hg).....	Part A: <0.013 hPa @ 77°F/25°C .	Part B: < 3 hPa @ 77°F/25°C .
Vapour density (air=1).....	Part A: >1.	Part B: >1.
pH.....	Part A: . No data.	Part B: . No Data.
Relative Density (Specific Gravity).....	Part A: 1.288 g/cm3 @ 20°C - 10.72 lb/USG @ 25°C.	Part B: 1.225 g/cm3 @ 20°C - 10.2 lb/usg @ 25°C.
Melting / Freezing point (deg C).....	Part A: . Not available.	Part B: . No data.
Solubility.....	Part A: Practically insoluble in water.	Part B: . No data.
Initial boiling point / boiling range (deg C).	Part A: >200°C (>392°F).	Part B: No data.
Evaporation rate.....	Part A: <1. (butyl acetate = 1).	Part B: . 1.0. Ethyl ether = 1.0.
Flash point (deg C), method.....	Part A: >100°C, >212°F.	Part B: >93.4°C, >200°F .
Auto ignition temperature (deg C).....	Part A: Not available.	Part B: No data.
Upper flammable limit (% vol).....	Part A: . No data.	Part B: . No Data.
Lower flammable limit (% vol).....	Part A: . No Data.	Part B: . No data.
Partition coefficient — n-octanol/water.....	Part A: . Not available.	Part B: . No data.
VOC (less water).....	Part A: 2.55 lb/USG - 305.57 g/L.	Part B: . No data.
Viscosity.....	Part A: . Not available.	Part B: . No data.

PRODUCT: 17030 URETHANE STRUCTURAL ADHESIVE**SECTION 10: STABILITY AND REACTIVITY**

Chemical stability.....	Stable at normal temperatures and pressures.
Reactivity	Contact with moisture and other materials will react with isocyanates.
Conditions to avoid.....	Excessive heat, flames and sparks, exposure to air and moisture.
Conditions to avoid, including static	Acids, alcohols, aluminum, amines, ammonia, bases, copper, fluorides, iron, isocyanates, oxidizers, water, zinc, phosphorus compounds.
discharge, shock or vibration	
Hazardous decomposition products.....	Isocyanates. Carbon oxides, formaldehydes, hydrocarbons, hydrogen cyanide, nitrogen oxides, phenols, silicone polymers.
Possibility of hazardous reactions.....	Product will not undergo hazardous polymerization .

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	490 mg/m ³ 4 hr 0.369 mg/L 4 hr	9,200 mg/kg rat oral >7,900 mg/kg rabbit dermal
Talc	Not available	Not available
2,4-Diphenylmethane diisocyanate (MDI)	No data	No data
PIPERAZINE	No data	1,900 mg/kg oral rat; 4,000 mg/kg dermal rabbit

Route of exposure.....	Eye contact. Skin contact. Inhalation.
Effects of acute exposure.....	SKIN: Irritant. Can cause reddening, itching and swelling. May cause allergic reaction to skin. Contact with fibrous glass or its dust can cause skin irritation. EYE: Product liquid, aerosols or vapours are irritating. Can cause tearing, reddening and swelling. INHALATION: Breathing this material may be harmful or fatal. Vapour/mists at concentrations above the exposure limits can irritate (burning sensation) the mucous membranes in the respiratory tract. This can cause a runny nose, sore throat, coughing, chest discomfort, difficulty breathing and reduced pulmonary functioning. INGESTION: Swallowing this material may be harmful or fatal. Symptoms can include severe stomach and intestinal irritation, abdominal pain and vomiting of blood.
Effects of chronic exposure.....	Breathing of dust/vapour and mist is possible. This product contains 4, 4'-diphenylmethane diisocyanate (MDI). Breathing MDI may cause an allergic respiratory reaction with difficult breathing and chest pain. Repeated and prolonged exposure to large amounts of talc dust may cause mild lung inflammation. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable.
Carcinogenicity of material.....	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
Reproductive effects.....	This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.
Note.....	Preexisting disorders of many types may be aggravated by exposure to this material.

SECTION 12: ECOLOGICAL INFORMATION

Environmental.....	Do not allow to enter waters, waste water or soil.
Persistence and degradability.....	Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Information on safe handling for disposal and methods of disposal, including any contaminated packaging	Dispose of waste in accordance with all applicable federal, provincial/State and local regulations. Industrial incineration is the preferred method. Empty containers retain product residue; observe all precautions for the product. Decontaminate containers prior to disposal. Empty decontaminated containers should be crushed to prevent reuse. Do not heat or cut empty containers with electric or gas torch as vapours and gases may be toxic.
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SECTION 14: TRANSPORT INFORMATION

TDG Classification.....	Not regulated.
IATA Classification (Air).....	Not regulated.
IMDG Classification (Marine).....	Not regulated.
Marine Pollutant.....	Potential marine pollutant.
Proof of Classification.....	In accordance with Part 2.2.1 of the Transportation of Dangerous Goods Regulations (July 2, 2014) - we certify that classification of this product is correct. .

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SECTION 15: REGULATORY INFORMATION

CEPA status..... On Domestic Substances List (DSL).
 TSCA inventory status..... All components are listed.
 OSHA..... This product is considered hazardous under the OSHA Hazard Communication Standard.
 SARA Title III
 Section 302 - extremely hazardous None.
 substances
 Section 311/312 - hazard categories..... Immediate health, delayed health.
 Section 313..... 4,4'-methylenediphenyl diisocyanate.
 EPA hazardous air pollutants (HAPS) None.
 40CFR63
 California Proposition 65..... None.

SECTION 16: OTHER INFORMATION

Prepared by: REGULATORY AFFAIRS.
 Telephone number:..... (800) 387-7981.
 Disclaimer:..... DISCLAIMER: All information appearing herein is based upon data obtained from experience and recognized technical sources. To the best of our knowledge, it is believed to be correct as of the date of issue but we make no representations as to its accuracy or sufficiency and do not suggest or guarantee that any hazards listed herein are the only ones which exist. The hazard information contained herein is offered solely for the consideration of the user, subject to his own investigation and verification of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. The information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

Review Date:..... 2021-11-05.
 Date of the latest revision of the safety .. 2015-07-31
 data sheet