



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

**PRODUCT: 17100 EPOXY PANEL BONDER (90 MIN)**

### SECTION 01: IDENTIFICATION

Product identifier..... 17100 EPOXY PANEL BONDER (90 MIN)  
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. for industrial use only-keep out of reach of children . This product  
use should not be used for any other purpose other than the ones described in this section.  
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 Corrosion — Category 1. Skin Sensitizer — Category 1. Serious Eye Damage —  
Category 1. Specific Target Organ Toxicity — Repeated Exposure — Category 1.  
Carcinogen 1A.  
Hazard Description..... H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin  
reaction. H318 Causes serious eye damage. H350 This product contains ingredients that  
may cause cancer. H372 Causes damage to the liver and kidneys through prolonged or  
repeated exposure.  
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 the 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 ..... P301 + P330 + P331 If swallowed, rinse mouth and do not induce vomiting. P302 + P352 -  
If on skin: wash with plenty of water. P303 + P361 + P353 If on skin or in hair: take off all  
contaminated clothing immediately. Rinse thoroughly with water and use safety shower .  
P310 - Immediately call your local poison control centre. 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. P308 + P313 If exposed or concerned,  
get medical advice/attention. P321 - For specific treatment see section 4 on this SDS.  
P337 + P313 - If eye irritation persists get medical attention. 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. %
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PART A:

POLYMER	25068-38-6	50-60
CYCLOHEXANEDIMETHANOL DIGLYCIDYL ETHER	14228-73-0	10-15
3-(Trimethoxysilyl) Propyl Glycidil	2530-83-8	1.5-5

**PRODUCT: 17100 EPOXY PANEL BONDER (90 MIN)****SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS**

Cristobalite (SiO <sub>2</sub> )	14464-46-1	1-1.5
Quartz	14808-60-7	0.5-1
Carbon Black	1333-86-4	0.1-0.5
PART B:		
9,12-OCTADECADIENOIC ACID-BASED POLYAMIDOAMINE	68541-13-9	30-40
Polyglycol Diamine	4246-51-9	10-15
2,4,6-Tris(Dimethylaminomethyl) Phenol	90-72-2	5-10
1H-Imidazole	288-32-4	1.5-5
1,5-Pentanediamine, 2-methyl-	15520-10-2	1.5-5
Bis-((Dimethylamino)methyl) phenol	71074-89-0	1-1.5
CRISTOBALITE	14464-46-1	0.1-0.5

**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. Rinse mouth with water. Give 1 to 2 glasses of water to drink. 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. Ingestion: treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound. 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 <sub>2</sub> ). 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.
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.

**PRODUCT: 17100 EPOXY PANEL BONDER (90 MIN)****SECTION 06: ACCIDENTAL RELEASE MEASURES**

Clean up..... 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. Decontaminate spill area with decontamination solution. Area can then be washed with soap and water.

**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.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
POLYMER	Not Established	Not Established	Not Established	Not Established	Not Established	Not Established
CYCLOHEXANEDIMETHANOL DIGLYCIDYL ETHER	Not established	Not established	Not established	Not established	Not established	Not established
3-(Trimethoxysilyl) Propyl Glycidil	Not Established	Not Established	Not Established	Not Established	Not Established	Not Established
Cristobalite (SiO <sub>2</sub> )	0.025 mg/m <sup>3</sup>	Not Established	0.05 mg/m <sup>3</sup>	Not Established	0.05 mg/m <sup>3</sup>	
Quartz	0.025 mg/m <sup>3</sup>	Not Established	0.1 mg/m <sup>3</sup> Respiratory	Not Established	0.05 mg/m <sup>3</sup>	
Carbon Black	3 mg/m <sup>3</sup> CA ON: 3 mg/m <sup>3</sup> (Inhalable) TWA	Not established	3.5 mg/m <sup>3</sup>	Not established	3.5 mg/m <sup>3</sup>	
9,12-OCTADECADIENOLIC ACID-BASED POLYAMIDOAMINE	Not established	Not established	Not established	Not established	Not established	Not established
Polyglycol Diamine	Not Established	Not Established	Not Established	Not Established	Not Established	Not Established
2,4,6-Tris(Dimethylamino methyl) Phenol	Not established	Not established	Not established	Not established	Not established	Not established
1H-Imidazole	Not Established	Not Established	Not Established	Not Established	Not Established	Not Established
1,5-Pentanediamine, 2-methyl-	Not Established	Not Established	Not Established	Not Established	Not Established	Not Established
Bis-((Dimethylamino)methyl) phenol	Not established	Not established	Not established	Not established	Not established	Not established
CRISTOBALITE	0.025 mg/m <sup>3</sup>	Not established	Not established	Not established	0.05 mg/m <sup>3</sup>	
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. However, this should be permitted only for short periods of time (< 1 hour) at relatively low concentrations (at or near the exposure limit). 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.					

**PRODUCT: 17100 EPOXY PANEL BONDER (90 MIN)****SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

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: Viscous liquid.
Colour.....	Part A: Black.	Part B: Tan.
Odour.....	Part A: No data.	Part B: Very faint, amine-like.
Odour threshold (ppm).....	Part A: Not available.	Part B: . No data.
Vapour pressure (mm Hg).....	Part A: <0.100 hPa @ 20C.	Part B: . <10.000 hPa @ 20C.
Vapour density (air=1).....	Part A: No data.	Part B: . >1.
pH.....	Part A: . No data.	Part B: . No Data.
Relative Density (Specific Gravity).....	Part A: 1.089 g/cm3 @ 20C. 9.06 lb/gal @ 25C.	Part B: . 1.13 g/cm3 @ 20C. 9.4 lb/gal @ 25C.
Melting / Freezing point (deg C).....	Part A: . Not available.	Part B: . No data.
Solubility.....	Part A: Practically insoluble in water.	Part B: . Insoluble in water.
Initial boiling point / boiling range (deg C).	Part A: >150°C (>302°F).	Part B: . No data.
Evaporation rate.....	Part A: . Not available.	Part B: . 1.0. Ethyl ether = 1.0.
Flash point (deg C), method.....	Part A: >99°C (>210°F) Setaflash Closed Cup.	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.

**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 discharge, shock or vibration ..... Acids, amines, bases, fluorides, oxidizing agents, peroxides, water.

Hazardous decomposition products..... 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
POLYMER	No Data	2,020 mg/kg oral rat
CYCLOHEXANEDIMETHANOL DIGLYCIDYL ETHER	No Data	2,500 mg/kg oral (rat)
3-(Trimethoxysilyl) Propyl Glycidil	>5.3 mg/L	8,025 mg/kg (oral rat) 4,250 mg/kg (dermal rabbit)
Cristobalite (SiO2)	No Data	8030 mg/kg oral, rat 4248 mg/kg dermal, rabbit
Quartz	Not Available	Not Available
Carbon Black	Not available	>10,000 mg/kg (oral rat ) 3,000 mg/kg (dermal rabbit)
9,12-OCTADECADIENOIC ACID-BASED POLYAMIDOAMINE	No Data	No data
Polyglycol Diamine	2.9 mg/L rat	1,690 mg/kg oral rat >2150 mg/kg dermal rabbit
2,4,6-Tris(Dimethylaminomethyl) Phenol	>0.5 mg/L 1Hr Inhalation, Rat	1200 mg/kg oral rat 1280 mg/kg dermal rabbit
1H-Imidazole	No Data	970 mg/kg oral rat
1,5-Pentanediamine, 2-methyl-	4.9 mg/L	1,690 mg/kg oral rat
Bis-((Dimethylamino)methyl) phenol	Not Available	Not Available

**PRODUCT: 17100 EPOXY PANEL BONDER (90 MIN)****SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
CRISTOBALITE	No data	No data
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.....	SKIN: Can cause permanent skin damage. EYE: Can cause permanent eye damage and can injure the cornea and cause blindness. INHALATION: Breathing this material may be harmful or fatal. Prolonged and repeated exposure of dust may result in progressive and permanent lung disease which may cause death from respiratory and/or heart failure. INGESTION: Swallowing this material may be harmful or fatal. Symptoms can include severe stomach and intestinal irritation, abdominal pain and vomiting of blood. Swallowing this mater may cause burns and destroy internal tissues. Low blood pressure and shock may also occur as a result of severe tissue injury.	
Carcinogenicity of material.....	This product contains Crystalline silica and Carbon Black that are known to the State of California to cause cancer. The IARC and NTP have determined that there is sufficient evidence in humans and experimental animals for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite.	
Reproductive effects.....	No known reproductive effects.	

**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.....	Corrosive Liquid, Basic, Organic, N.O.S. (2,4,6-Tris(Dimethylaminomethyl)Phenol, Aliphatic Amine) - Class 8 - UN3267 - Packing Group III - This product meets limited quantity exemption when shipped in containers less than 5 litres .
IATA Classification (Air).....	Corrosive Liquid, Basic, Organic, N.O.S. (2,4,6-Tris(Dimethylaminomethyl)Phenol, Aliphatic Amine) - Class 8 - UN3267 - Packing Group III .
IMDG Classification (Marine).....	Corrosive Liquid, Basic, Organic, N.O.S. (2,4,6-Tris(Dimethylaminomethyl)Phenol, Aliphatic Amine) - Class 8 - UN3267 - Packing Group III - EmS F-A, S-B .
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. .

**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 substances	None.
Section 311/312 - hazard categories	Immediate health, delayed health.
Section 313.....	None.
EPA hazardous air pollutants (HAPS) 40CFR63	None.
California Proposition 65.....	This product contains crystalline silica (Quartz) and carbon black that are known to the State of California to cause cancer.

**PRODUCT: 17100 EPOXY PANEL BONDER (90 MIN)****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:..... 2022-11-30.

Date of the latest revision of the safety .. 2015-07-30

data sheet