



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

**PRODUCT: PF 211 URETHANE SEALER/ADHESIVE - GRAY**

**SECTION 01: Chemical product and company identification**

Product name..... PF 211 URETHANE SEALER/ADHESIVE - GRAY  
 Manufactured for..... Pro Form Products Ltd.  
 604 McGeachie Drive  
 Milton, Ontario L9T3Y5  
 Tel (905) 878-4990 Fax (905) 878-1189  
 24 hour emergency number:..... IN CANADA CALL CANUTEC 1-888-226-8832 (CAN-UTEC) - IN THE UNITED STATES  
 CALL CHEMTREC 1-800-424-9300.  
 Recommended use and restrictions on use.. Adhesive applications.  
 Chemical family..... Aromatic isocyanate prepolymer.  
 Hazard rating  
 NFPA rating..... Health: 2 Fire: 1 Reactivity: 0.  
 HMIS..... H: 2 F: 1 R: 1.

**SECTION 02: Hazards identification**



Signal Word..... DANGER.  
 Hazard Classification..... Acute Toxicity 4. Skin Irritant 2. Eye Irritant 2A. Respiratory Sensitizer 1. Skin Sensitizer 1.  
 Reproductive 1.  
 Hazard Description..... H315 Causes skin irritation. H313 May be harmful in contact with skin. H317 May cause an  
 allergic skin reaction. H320 Causes eye irritation. H302 Harmful if swallowed. H332  
 Harmful if inhaled. H335 May cause respiratory irritation. H334 May cause allergy or  
 asthma symptoms or breathing difficulties if inhaled. H361 This product contains  
 ingredients that are suspected of damaging fertility or the unborn child.  
 Prevention..... P202 Do not handle this product until all safety instructions have been read and  
 understood. P233 Keep container tightly closed. P251 Do not pierce or burn container,  
 even after use. P261 Avoid breathing dust. P261 Avoid breathing mists, vapours and  
 sprays. P264 Wash thoroughly after handling. P270 Do not eat drink or smoke while using  
 this product. P271 Use only outdoors or in a well ventilated area. P272 Contaminated work  
 clothing should not be allowed out of the workplace. P273 Avoid release to the  
 environment. P280 Wear protective gloves and eye protection. P284 In case of inadequate  
 ventilation wear respiratory protection.

**SECTION 03: Composition/Information on Ingredients**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Xylene	1330-20-7	4-9
DIPHENYLMETHANE DIISOCYANATE (MDI)	26447-40-5	0.1-1.0

**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.  
 Consult a physician if irritation continues.  
 Skin contact..... Immediately flush skin with plenty of soap and water. Remove contaminated clothing.  
 Wash clothing before reuse. 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.

**PRODUCT: PF 211 URETHANE SEALER/ADHESIVE - GRAY****SECTION 04: First aid measures**

Additional information..... In all cases, if irritation persists seek medical attention. 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.

**SECTION 05: Fire fighting measures**

Suitable and unsuitable extinguishing media Carbon dioxide. Foam. Dry chemical. In cases of larger fires, water spray should be used.  
 Hazardous combustion products..... Oxides of carbon (CO, CO<sub>2</sub>). Oxides of nitrogen. Hydrogen cyanide. Isocyanates. Dense black smoke. Other potentially toxic fumes.  
 Special fire fighting procedures..... 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.  
 Unusual fire / explosion hazards..... During a fire, irritating and toxic gases and aerosols may be generated by thermal decomposition and combustion. 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 area. Open windows and doors to allow air circulation. Dike area to prevent spreading. The use of absorbent socks or spill pillows may be required. Spilled material and water rinses are classified as chemical waste, and must be disposed of in accordance with current local, provincial, state, and federal regulations. Stop leak if safe to do so. Prevent runoff into drains, sewers, and other waterways.  
 Major spills..... 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. If temporary control of isocyanate vapour is required, a blanket of protein foam may be placed over spill. Large quantities may be pumped into closed, but not sealed, containers for disposal.  
 Minor spills..... Cover spill area with suitable absorbent material (e.g., sand, earth, sawdust, vermiculite, Oil-Dri, Kitty Litter, etc.). Saturate absorbent material with neutralizing solution. Recommended portion is ten parts neutralizing solution to one part spilled material. Suggested neutralization solution: 90% water + 5% concentrated ammonia + 5% detergent (dish soap). Add an additional layer of absorbent material. Use shovel to move absorbent material around to ensure that all spilled material comes in contact with the neutralizing solution. Shovel all absorbed material, including absorbent socks or spill pillows, into an appropriate salvage drum. Allow to stand (covered loosely) for 48 to 72 hours, to allow any gases to escape.  
 Clean up..... Decontaminate spill area with decontamination solution. Area can then be washed with soap and water.

**SECTION 07: Handling and storage**

Handling procedures..... Avoid skin and eye contact. Do not breathe vapours, mist or dust. Use adequate ventilation. Keep container closed when not in use. Do not reseal if contamination is suspected. 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.  
 Storage needs..... Store in a cool, dry and well ventilated area. Keep container closed when not in use.

**SECTION 08: Exposure controls / personal protection**

**PRODUCT: PF 211 URETHANE SEALER/ADHESIVE - GRAY**
**SECTION 08: Exposure controls / personal protection**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
Xylene	50 ppm	150 ppm	100 ppm TWA	Not established		Not established
DIPHENYLMETHANE DIISOCYANATE (MDI)	Not established	Not established	Not established	Not established		Not established
	No data					
Protective equipment						
Eye/type.....						Chemical safety goggles. Chemical safety goggles and full faceshield if a splash hazard exists.
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. Respiratory equipment required during spraying. 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. Be sure to 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.
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. Employees should wash their hands and face before eating, drinking, or using tobacco products.
Appropriate engineering controls.....						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.
Monitoring.....						Exposure levels must be monitored by accepted monitoring techniques to ensure that the TLV is not exceeded.
Medical surveillance.....						Medical supervision of all employees who handle or come in contact with isocyanates is recommended. These should include preemployment and periodic medical examinations with pulmonary function test (FEC, FVC as a minimum). Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurring skin eczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted.
Exposure limits						

**SECTION 09: Physical and chemical properties**

Physical state.....	Paste. Thixotropic.
Colour.....	Gray.
Odour.....	Light, typical.
Odour threshold (ppm).....	Not available.
Vapour pressure (mm Hg).....	Not available.
Vapour density (air=1).....	No data.
pH.....	Not applicable. (undiluted).
Relative Density (Specific Gravity).....	1.32 g/ml (20C) (Method: immersed body).
Melting / Freezing point (deg C).....	Not applicable.
Solubility.....	Insoluble in water. Completely soluble in organic solvents.
Initial boiling point / boiling range (deg C).....	Not applicable.
Evaporation rate.....	Not available.
Flash point (deg C), method.....	>200.
Auto ignition temperature (deg C).....	>250.
Upper flammable limit (% vol).....	No data.
Lower flammable limit (% vol).....	No data.
Coefficient of water/oil distribution.....	Not available.
Viscosity.....	60000-120000 cPs (23C).
VOC.....	65.5 g/L - 0.55 lb/USG.

**SECTION 10: Stability and reactivity**

Chemical stability.....	Stable at normal temperatures and pressures.
Reactivity .....	Reacts slowly with water, forming carbon dioxide.
Conditions to avoid.....	Water, amines, strong bases, alcohols. Copper alloys.
Hazardous decomposition products.....	See hazardous combustion products section 5.
Possibility of hazardous reactions.....	Contact with moisture, other materials that react with isocyanates, or temperatures above 177C, may cause polymerization.

**PRODUCT: PF 211 URETHANE SEALER/ADHESIVE - GRAY****SECTION 11: Toxicological information**

INGREDIENTS	LC50	LD50
Xylene	6350 ppm 4 hours rat	>3523 mg/kg rat oral
DIPHENYLMETHANE DIISOCYANATE (MDI)	172-187 mg/m3 - 4h Rat	Not available
Route of entry .....	Eye contact. Skin contact. Inhalation.	
Effects of acute exposure.....	Causes skin irritation. Causes reddening, stinging and swelling. Persons previously sensitized can experience an allergic reaction with symptoms of reddening, itching, swelling and rash. Cured product is difficult to remove. Contact with MDI can cause discolouration. Causes eye irritation. Can cause tearing, reddening and swelling. May cause temporary corneal damage. Isocyanate 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, difficult breathing and reduced pulmonary functioning. Persons with pre-existing, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV with similar symptoms, as well as asthma attack. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema. Chemical or hypersensitive pneumonitis, with flu-like symptoms has also been reported. These symptoms can be delayed up to several hours after exposure. Effects are usually reversible. Can result in irritation in the digestive tract. Aspiration of liquid into lungs can cause chemical pneumonitis. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.	
Effects of chronic exposure.....	As a result of previous repeated overexposure or a single large dose, certain individuals develop sensitization which will cause them to react to a later exposure to product at levels well below the exposure limit. Symptoms including chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed. There are reports that once sensitized, an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and, in severe cases, for several years. Prolonged or repeated exposure may cause lung damage, including a decrease in lung function. Prolonged skin contact may cause reddening, swelling, rash, scaling, blistering, and in some cases, sensitization. Sensitization can be permanent. Prolonged vapour contact may cause conjunctivitis.	
Sensitizing capability of material.....	Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates.	
Carcinogenicity of material.....	This product is not listed by IARC or NIOSH or regulated as a carcinogen by OSHA.	
Reproductive effects.....	High level exposure to Xylene in some animal studies have been reported to cause health effects on the developing embryo/fetus. The relevance of this to humans is not known.	
Toxicological Data		

**SECTION 12: Ecological information**

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

**SECTION 13: Disposal considerations**

Waste disposal.....	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.....	No.

**SECTION 15: Regulatory information**

WHMIS 1988 classification.....	D2A, D2B.
CEPA status.....	On Domestic Substances List (DSL).
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.....	Xylene. Polymeric diphenylmethane diisocyanate.

**PRODUCT: PF 211 URETHANE SEALER/ADHESIVE - GRAY****SECTION 15: Regulatory information**

EPA hazardous air pollutants (HAPS) ..... None.  
 40CFR63  
 TSCA inventory status..... All components are listed.  
 California Proposition 65..... This product does not contain any chemical(s) listed on California's Proposition 65.

**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.

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