Pro Form Products Ltd.
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Milton, Ontario, L9T 3Y5
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905-878-4990

PRODUCT: PF 18122 URETHANE SEALER/ADHESIVE BLACK

SECTION 01: IDENTIFICATION

Initial supplier identifier..... Wyatt Machine Tools Rupes (NZ) Limited
388 Church Street, Penrose, Auckland, New Zealand
PH: (09) 525 1000
Email: info@wyatt.co.nz
Emergency number 0800 992 881 (0800WYATT1)

Product identifier..... PF 18122 URETHANE SEALER/ADHESIVE BLACK

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.

24 hour emergency number:..... NZ Emergency 0800 992 881 (0800WYATT1).

SECTION 02: HAZARD IDENTIFICATION

Signal Word..... DANGER.

Hazard Classification..... Acute Toxicity 4. Skin Corrosion/Irritation — Category 2. Serious Eye Damage/Eye Irritation — Category 2A. Respiratory Sensitizer 1. Skin Sensitizer 1. Reproductive Toxicity — Category 1.

Hazard Description..... H313 May be harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H302 Harmful if swallowed. H320 Causes eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H361 Suspected of damaging fertility or the unborn child.

Prevention..... P202 Do not handle this product until all safety instructions have been read and understood. 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. P233 Keep container tightly closed.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Xylene	1330-20-7	4-9
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	101-68-8	0.1-1

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.

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SECTION 04: FIRST-AID MEASURES

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.....	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.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable extinguishing media.....	Dry chemical. Carbon dioxide. Foam. 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, CO2). Oxides of nitrogen. Hydrogen cyanide. Isocyanates. Dense black smoke. 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.....	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. 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. 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.
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. Add further amounts of neutralizing solution. 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

Precautions for safe handling.....	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. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed vapour or spray mist. Employee education and training are important.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry and well ventilated area. Keep container closed when not in use.

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SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
Xylene	50 ppm	150 ppm	100 ppm TWA	Not available	Not available
	CA ON: 100ppm (TWA); 150ppm (STEL)				
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	0.005 ppm	Not available	0.005 ppm TWA	0.005 ppm AB OEL TWA	0.05 mg/m3
	Not available				

Personal Protective Equipment

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. Respiratory equipment required during spraying. Whenever concentrations of isocyanates exceed the exposure limit or are not known, respiratory protection must be worn. A positive pressure, supplied-air respirator or a self-contained breathing apparatus is recommended. 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.

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..... 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. These should include preemployment and periodic medical examinations with pulmonary function test (fev, fvc as a minimum). Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrant 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

Appearance/Physical state..... Thixotropic. Paste.
Colour..... Black.
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.
Partition coefficient — n-octanol/water..... Not available.
Viscosity..... 60000-120000 cPs (23C).
VOC LBS/GAL less water..... 65.5 g/L - 0.55 lb/USG.

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SECTION 10: STABILITY AND REACTIVITY

Chemical stability	Stable at normal temperatures and pressures.
Reactivity	Reacts slowly with water, forming carbon dioxide.
Conditions to avoid, including static discharge, shock or vibration	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.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Xylene	6350 ppm 4 hours rat	>3523 mg/kg rat oral
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	490 mg/m3 4 hr 0.369 mg/L 4 hr	9,200 mg/kg rat oral >7,900 mg/kg rabbit dermal

Route of exposure	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.
Respiratory or Skin Sensitization	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	This product is not listed by NTP, IARC 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.

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

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.

SECTION 14: TRANSPORT INFORMATION

TDG Classification	Not regulated.
IATA Classification (Air)	Not regulated.
IMDG Classification (Marine)	Not regulated.
Marine Pollutant	No.

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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.
EPA hazardous air pollutants (HAPS) 40CFR63	None.
TSCA inventory status.....	All components are listed.
California Proposition 65.....	This product does not contain any chemical(s) listed on California's Proposition 65.
(NZ) Statement.....	This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.
(NZ) HSNO Classifications.....	6.1D. 6.3A. 6.4A. 6.5A. 6.5B. 6.8A.
(NZ) HSNO Group Standard.....	Surface Coatings/Colourants - Subsidiary HSR002670.

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:.....	2023-11-15.
Date of the latest revision of the safety .. data sheet	2019-11-14