



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

PRODUCT: PF 17090 STRUCTURAL ADHESIVE BLACK 10 MINS PART A

SECTION 01: IDENTIFICATION

Initial supplier identifier..... Wyatt Machine Tools (Rupes) NZ Limited
388 Church Street, Penrose
Auckland, New Zealand
PH: (09) 525 1000
FAX: (09) 525 1009

Product identifier..... PF 17090 STRUCTURAL ADHESIVE BLACK 10 MINS PART A

Recommended use and restrictions on .. Adhesive applications.
use

Chemical family..... Aromatic isocyanate prepolymer.

Hazard rating

NFPA rating..... Health: 2 Fire: 1 Reactivity: 1.

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. Respiratory Sensitizer — Category 1. Skin Sensitizer — Category 1. Carcinogenicity — Category 2. Eye Irritant 2. Skin Irritation — Category 2. Specific Target Organ Toxicity — Single Exposure — Category 3.

Hazard Description..... H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H320 Causes eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 This product contains ingredients that are suspected of causing cancer.

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 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.

Note The reacted product is an inert plastic when fully cured, and as such, is non hazardous. Exposure to unreacted chemicals can occur when handling the individual components in pails or when using cartridges from the time of dispensing until the mixed material has cured.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	101-68-8	15-40
Talc	14807-96-6	10-20
SCAVENGER	497-18-7	10-30
Quartz	14808-60-7	<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. Obtain medical attention.

PRODUCT: PF 17090 STRUCTURAL ADHESIVE BLACK 10 MINS PART A**SECTION 04: FIRST-AID MEASURES**

Skin contact.....	If irritation persists, seek medical attention. Immediately flush skin with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse.
Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen, obtain medical attention.
Ingestion.....	Rinse mouth with water. Give 1 to 2 glasses of water to drink. Do not induce vomiting. If spontaneous vomiting occurs have victim lean forward with head down to prevent aspiration of fluid into the lungs. Never give anything by mouth to an unconscious person. 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. 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	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, CO ₂). Oxides of nitrogen. Smoke. Hydrogen cyanide. Isocyanates. 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. 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. Absorb with earth, sand, or another dry inert material. Shovel into suitable unsealed containers, transport to well-ventilated area (outside) and treat with neutralizing solution: mixture of water (80%) with non-ionic surfactant Tergitol TMN-10 (20%); or water (90%), concentrated ammonia (3-8%) and detergent (2%).
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.
Minor spills.....	Absorb isocyanates with sawdust or other absorbent. Pour decontamination solution over spill area and allow to react for at least 10 minutes. 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

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SECTION 07: HANDLING AND STORAGE

Precautions for safe handling..... Do not breathe vapours, mist or dust. Use adequate ventilation. Wear respiratory protection if material is heated, sprayed, used in confined space, or if exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odour) are not adequate to prevent chronic overexposure from inhalation. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed vapour or spray mist. Avoid skin and eye contact. Wash thoroughly after handling. Decomposition products are highly toxic and irritating. Ensure that equipment is properly bonded and grounded during filling and transferring as product may become electrostatically charged. Employee education and training are important.

Conditions for safe storage, including any incompatibilities Storage temperature min/max 34-50C. Store in tightly closed containers to prevent moisture contamination. Keep away from heat, sparks, and open flames. 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	OSHA PEL STEL	NIOSH REL	
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	Not established	2 mg/m3 TWA	3 mg/m3 - QUE	Not established
SCAVENGER	No data	No data	No data	No data	No data
	1 mg/m3				
Quartz	0.025 mg/m3	Not Established	0.1 mg/m3 Respiratory	Not Established	0.05 mg/m3

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..... 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. At least an air-purifying respirator equipped with an organic vapour cartridge and particulate pre-filters must be worn. However, this should be permitted only for short periods of time (< 1 hour) at relatively low concentrations (at or near the exposure limit). 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. Do not exceed the use limits of the respirator.

Gloves/ type..... Chemical resistant gloves. Butyl rubber. Neoprene. Nitrile rubber. 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..... Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. Local mechanical exhaust ventilation should be used at sources of air contamination, such as open process equipment, or during purging operations, to capture gases and fumes that may be emitted. Standard reference sources regarding industrial ventilation (ie. ACGIH industrial ventilation) should be consulted for guidance about adequate ventilation. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

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 recurrent 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

PRODUCT: PF 17090 STRUCTURAL ADHESIVE BLACK 10 MINS PART A**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance/Physical state.....	Viscous liquid.
Colour.....	Beige.
Odour.....	No data.
Odour threshold (ppm).....	Not available.
Vapour pressure (mm Hg).....	<0.013 hPa @ 25C.
Vapour density (air=1).....	>1.
pH.....	No data.
Relative Density (Specific Gravity).....	1.288 g/cm ³ @ 20°C - 10.72 lb/USG @ 25°C.
Melting / Freezing point (deg C).....	Not available.
Solubility.....	Reacts with water.
Initial boiling point / boiling range (deg C).....	>200°C (>392°F).
Evaporation rate.....	<1. (butyl acetate = 1).
Flash point (deg C), method.....	>100°C, >212°F.
Auto ignition temperature (deg C).....	Not available.
Upper flammable limit (% vol).....	No data.
Lower flammable limit (% vol).....	No data.
Partition coefficient — n-octanol/water.....	Not available.
VOC.....	0.0 g/L - 0.0 lb/usg.
Viscosity.....	Not available.

SECTION 10: STABILITY AND REACTIVITY

Chemical stability.....	Stable at normal temperatures and pressures.
Reactivity	Reacts slowly with water, forming carbon dioxide. Explosive reactions can occur in the presence of strong oxidizing agents.
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
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
SCAVENGER	No data	No data
Quartz	Not Available	Not Available
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 discoloration. Causes eye irritation. Can cause tearing, reddening and swelling. May cause temporary corneal damage.	
Effects of chronic exposure.....	Prolonged skin contact may cause reddening, swelling, rash, scaling, blistering, and in some cases, sensitization. Prolonged or repeated exposure may result in an allergic respiratory reaction in sensitive individuals. 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. Sensitization can be permanent. Prolonged vapour contact may cause conjunctivitis. Talc has been shown to cause fibrosis of the lungs. Prolonged or repeated breathing of talc may result in progressive and permanent lung disease (fibrosis) which may cause death from respiratory and/or heart failure. Symptoms include coughing and difficult breathing which becomes worse with physical activity. .	
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.....	The Talc in this product may contain Quartz (<1). Quartz (Crystalline Silica) is listed by IARC in Group 1 as a carcinogen. .	
Toxicological Data		

PRODUCT: PF 17090 STRUCTURAL ADHESIVE BLACK 10 MINS PART A**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..... Potential marine pollutant.

SECTION 15: REGULATORY INFORMATION

WHMIS 1988 classification..... D2A, D2B.
 CEPA status..... On Domestic Substances List (DSL).
 Section 313..... None.
 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.
 EPA hazardous air pollutants (HAPS) 40CFR63 Methylene Diphenyl Diisocyanate (MDI).
 TSCA inventory status..... All components are listed.
 California Proposition 65..... This product does not contain any chemical(s) known to the State of California to cause cancer or reproductive toxicity.
 (NZ) Statement..... This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.
 (NZ) HSNO Classifications..... 6.1D. 6.5A. 6.5B. 6.7B. 6.4A. 6.3A. 6.1E. 6.9B.
 (NZ) HSNO Group Standard..... Surface Coatings/Colourants - Toxic 6.7 HSR002679.

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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