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PRODUCT: PF 20110 PINCHWELD & GLASS BOND PRIMER

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 20110 PINCHWELD & GLASS BOND PRIMER
Recommended use and restrictions on use ..	Primer.
Chemical family.....	Mixture.
NFPA rating.....	Health: 2 Fire: 4 Reactivity: 0.
HMIS.....	H: 2 F:4 R: 0.
24 hour emergency number:.....	NZ Emergency 0800 992 881 (0800WYATT1).

SECTION 02: HAZARD IDENTIFICATION

Signal Word.....	DANGER.
Hazard Classification.....	Flammable Liquid 2. Eye Irritation — Category 2A. Respiratory Sensitizer — Category 1. Specific Target Organ Toxicity — Single Exposure — Category 3. (narcotic effects).
Hazard Description.....	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H336 May cause drowsiness or dizziness.
Prevention.....	P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion proof equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing mists, vapours and sprays. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well ventilated area. P280 Wear protective gloves and eye protection. P284 In case of inadequate ventilation wear respiratory protection.
Response	P370 + P378 In case of fire - use dry chemical powder, CO2 or foam to extinguish. P303 + P361 + P353 If on skin or in hair: take off all contaminated clothing immediately. Rinse thoroughly with water and use safety shower . 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. P337 + P313 - If eye irritation persists get medical attention. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P342 + P311 If experiencing respiratory symptoms; call poison center or doctor. P312 Call a POISON CENTER/doctor if you feel unwell.
Storage.....	P233 Keep container tightly closed. P403 + P235 Store in well ventilated area. Keep cool. P405 Store locked up.
Disposal.....	P501 Dispose all unused, waste or empty containers in accordance with local regulations.
Note	This product mixture has been classified based on its ingredients.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Methyl Ethyl Ketone	78-93-3	62-66
Benzene, 1,1'-methylenebis[4-isocyanato- (MDI)	101-68-8	0.1-1
Isophorone Diisocyanate	4098-71-9	0.1-1
<<The actual concentration(s) withheld as a trade secret>> .		

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SECTION 04: FIRST-AID MEASURES

Eye contact.....	Check for and remove any contact lenses, if safe and easy to do so. In case of contact, immediately flush eyes, keeping eyelids open, with plenty of water for at least 15 minutes. Consult a physician if irritation continues.
Skin contact.....	Immediately flush skin with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse. Obtain 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.....	Get medical attention. Do not induce vomiting. Rinse mouth with water. 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.
Most important symptoms and effects, ... whether acute or delayed	Harmful if swallowed, in contact with skin or if inhaled. Can cause skin sensitization. Causes eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
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. Do not use water in a jet.
Specific hazards arising from the ..... hazardous product, such as the nature of any hazardous combustion products	Thermal decomposition products are toxic. May include:. Oxides of carbon (CO, CO2). 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. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture. During a fire, isocyanate vapours and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.
Unusual fire / explosion hazards.....	During a fire, irritating and toxic gases and aerosols may be generated by thermal decomposition and combustion.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective ..... equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. 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 non-sparking tools and equipment to pick up the spilled material. Equipment should be grounded.
Methods and materials for containment and cleaning up	
Leak/spill.....	Isolate area and keep unauthorized people away. Do not walk through spilled material. Follow all applicable fire and explosion precautions during the spill response procedure. Avoid breathing vapours and skin contact. Remove sources of ignition if combustible or flammable vapours may be present and ventilate area. Open windows and doors to allow air circulation. Wear recommended protective equipment. Dike area to prevent spreading. Prevent runoff into drains, sewers, and other waterways. The use of absorbent socks or spill pillows may be required. Absorb with earth, sand, or another dry inert material. Pick up waste material and place in an appropriate container for disposal. Use explosion-proof or hand pumps and non-sparking tools and equipment. 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.

SECTION 07: HANDLING AND STORAGE

Precautions for safe handling.....	Keep away from heat, sparks, and open flame. Avoid skin and eye contact. Use adequate ventilation. Avoid breathing vapours or mist. Wear respiratory protection if material is

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SECTION 07: HANDLING AND STORAGE

Precautions for safe handling..... heated, sprayed, used in confined space, or if exposure limit is exceeded. Electrostatic charges may be generated during pumping. Do NOT use compressed air for handling. Ensure that equipment is properly bonded and grounded during filling and transferring as product may become electrostatically charged. Ground handling equipment. Keep container closed when not in use. Do not reseal if contamination is suspected. Wash thoroughly after handling. Employee education and training are important. Handle in accordance with good industrial hygiene and safety practices.

Conditions for safe storage, including any incompatibilities: Keep away from heat, sparks, and open flames. Store in a cool, dry and well ventilated area. Store away from sunlight. Keep container closed when not in use. Do not reseal if contamination is suspected.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
Methyl Ethyl Ketone	200 ppm	300 ppm	200 ppm	Not established	200 ppm TWA
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
Isophorone Diisocyanate	0.005 ppm	Not established	Not established	Not established	0.005 ppm skin

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. Explosion-proof exhaust ventilation.

Personal Protective Equipment

Eye/type..... Chemical safety goggles. Chemical safety goggles and full faceshield if a splash hazard exists.

Gloves/ type..... Wear skin protection equipment. The selection of skin protection equipment depends on the nature of the work to be performed. The following gloves are recommended :. Short term:. Nitrile rubber. Thickness: 0.3 mm. Permeation time: >480 min. Continued exposure:. Butyl rubber. Thickness: 0.4 mm. Permeation time: >480 min.

Footwear/type..... Safety boots per local regulations.

Clothing/type..... Wear adequate protective clothes. Wear long sleeves and trousers to prevent dermal exposure.

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. 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. Respiratory equipment required during spraying. Be sure to use NIOSH approved respirator or equipment. Do not exceed the use limits of the respirator.

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.

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.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state..... Liquid.
Colour..... Black.
Odour..... Solvent odour.
Odour threshold (ppm)..... Not available.
pH..... Not available.
Melting / Freezing point (deg C)..... Not available.
Initial boiling point / boiling range (deg C). 80°C (176°F).
Flash point (deg C), method..... -10°C (14 °F).
Evaporation rate..... Not available.
Flammability (solids and gases)..... Not applicable.
Upper explosive limit (% vol)..... 11.5.
Lower explosive limit (% vol)..... 0.8.
Vapour pressure (mm Hg)..... 150 bar.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Vapour density (air=1).....	2.5.
Relative Density (Specific Gravity).....	0.95.
Pounds / USG.....	7.93.
Solubility.....	Not available.
Partition coefficient — n-octanol/water.....	Not available.
Auto ignition temperature (deg C).....	400 °C (752 °F).
Decomposition temperature.....	Not available.
Viscosity.....	Not available.
% Volatile by volume.....	Not available.
VOC.....	(Directive 2010/75/EC). 588.1 g/L; 4.91 lbs/USG . (volatile carbon). 410.98 g/L; 3.43 lbs/USG.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	MEK may react with aluminum.
Chemical stability.....	Stable at normal temperatures and pressures. Decomposes under high heat.
Possibility of hazardous reactions.....	Combustion will give rise to the formation of dangerous products. May generate peroxides on contact with air, light, or oxidizing agents.
Conditions to avoid, including static ..... discharge, shock or vibration	Electrostatic charge. Avoid heat, spark, open flames.
Incompatible materails.....	Strong oxidizing agents, acids, bases. Light metals. Some plastics. Sodium hydroxide. Amines. Alcohols. Chloroform. Ammonia. Copper. Inorganic acids. Water.
Hazardous decomposition products.....	Combustion and process gases formed during production may contain potentially toxic fumes. Oxides of carbon (CO,CO2). Nitric oxide. Hydrogen cyanide.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Methyl Ethyl Ketone	>5,000 ppm (6 hours, rat) 11000 ppm (45 minutes, mouse)	3,400 mg/kg (rat, oral) >8000 mg/kg (rabbit, dermal) 670 mg/kg (mouse, 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
Isophorone Diisocyanate	123 mg/m3 4 hours rat	>1,000 mg/kg rat oral 1,060 mg/kg rat dermal

Acute Toxicity Estimate (ATE).....	ATE mix (inhalation):. >5 mg/L.
Route of exposure.....	Eye contact. Skin contact. Inhalation.
Effects of acute exposure.....	Causes eye irritation. Can cause tearing, reddening and swelling. May cause temporary corneal damage. May cause skin irritation. Causes respiratory tract irritation. 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. May cause central nervous system effects such as headache, nausea, vomiting and weakness.
Effects of chronic exposure.....	Prolonged or repeated skin contact may cause drying or cracking of skin. Prolonged skin contact may cause reddening, swelling, rash, scaling, blistering, and in some cases, sensitization. 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. Sensitization can be permanent. Prolonged inhalation may be harmful. . Symptoms including chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed. Prolonged or repeated exposure may cause lung damage, including a decrease in lung function. Prolonged vapour contact may cause conjunctivitis. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal .
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.
Reproductive effects.....	In one study, Methyl Ethyl Ketone has been found to cause embryol toxicity in large concentrations.
Carcinogenicity of material.....	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC or ACGIH. IARC Group 3:. (not classifiable as a human carcinogen). Benzene, 1,1'-methylenebis[4-isocyanato- (MDI).

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SECTION 11: TOXICOLOGICAL INFORMATION

Specific Target Organ Toxicity ..... May cause drowsiness or dizziness.

SECTION 12: ECOLOGICAL INFORMATION

Environmental..... No product data. Do not allow to enter waters, waste water or soil.

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. Empty containers must be handled with care due to product residue.

SECTION 14: TRANSPORT INFORMATION

TDG Classification..... UN1139 - COATING SOLUTION - Class 3 - Packing Group II - This product meets the limited quantity exemption when packaged in containers less than 5 Litres.

DOT Classification (Road)..... UN1139 - COATING SOLUTION - Class 3 - Packing Group II . Ltd Qty (5 Liters/1.3 Gallons).

IATA Classification (Air)..... UN1139 - COATING SOLUTION - Class 3 - Packing Group II . Limited Quantity. Do not ship by air without checking appropriate IATA regulations.

IMDG Classification (Marine)..... UN1139 - COATING SOLUTION - Class 3 - Packing Group II - EmS: F-E S-E. Check IMDG regulations for limited quantity exemptions.

Marine Pollutant..... No.

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 either listed or exempt from the TSCA. .

OSHA..... This product is considered hazardous under the OSHA Hazard Communication Standard.

SARA Title III

Section 302 - extremely hazardous ..... substances — Isophorone Diisocyanate.

Section 311/312 - hazard categories..... Immediate health, delayed health, fire hazard.

Section 313..... Isophorone Diisocyanate. Methylene Diphenyl Diisocyanate (MDI).

EPA hazardous air pollutants (HAPS) ..... 40CFR63 — Methylene Diphenyl Diisocyanate (MDI).

California Proposition 65..... This product does not contain any chemical(s) known to the State of California to cause cancer or reproductive toxicity. For more information, go to www.P65Warnings.ca.gov.

(NZ) Statement..... This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.

(NZ) HSNO Classifications..... 3.1B. 6.4A. 6.5B. 6.1E. 6.9B. 6.3A. 6.5A. 6.1B.

(NZ) HSNO Group Standard..... Surface Coatings/Colourants - Flammable HSR002662.

SECTION 16: OTHER INFORMATION

Prepared by: ..... REGULATORY AFFAIRS. Trivalent Data Systems Ltd. www.trivalent.com.

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.

Date of the latest revision of the safety .. data sheet — 2019-11-14