

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**Product Name** 501 Polyurethane Woodworking Glue  
**Other Names** -  
**Product Use** Polyurethane woodworking adhesive  
**Supplier Name** TAC Adhesive Pty Ltd.  
**Address** 32 Cahill Street  
Dandenong South VIC 3175  
Ph: (03) 9768 3789 Fax: (03) 9768 3798

**2. HAZARDS IDENTIFICATION**

**GHS Classification:** Signal word : DANGER

Carcinogenicity: Category 2

Skin Corrosion/Irritation: Category 2

Skin Sensitisation: Category 1

Serious Eye Damage / Eye Irritation: Category 2A

Acute Toxicity: Inhalation: Category 4

Respiratory Sensitisation: Category 1

Specific Target Organ Systemic Toxicity (Single Exposure): Category 3

Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 1

Pictograms : health hazard, exclamation mark

**Hazard Statements**

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

H351 - Suspected of causing cancer.

H372 - Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements-Prevention**

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when 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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P285 In case of inadequate ventilation wear respiratory protection.

**Precautionary Statements-Response**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position 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.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P321 Specific treatment is advised - see first aid instructions.

P362 Take off contaminated clothing and wash before re-use.

#### Precautionary Statements-Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

#### Precautionary Statements-Disposal

P501 – Dispose of contents/container in accordance with local regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (common name)	CAS Number	Proportion
Isocyanate Prepolymer	89096-17-3	30-60%
Polymethylenepolyphenyl isocyanate	9016-87-9	10-29%
Diphenylmethane 4,4 di-isocyanate	101-68-8	10-29%
Diphenylmethane 2,4 di-isocyanate	5873-54-1	<1%
Dimorpholinodiethyl ether	6425-39-4	<1%

### 4. FIRST AID MEASURES

<b>Eye</b>	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
<b>Inhalation</b>	If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
<b>Ingestion</b>	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**First aid facilities** Eye wash facilities and safety shower should be available.

### 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	For major fires call the Fire Brigade. Ensure that an escape path is available from any fire. Water fog (or if unavailable fine water spray), foam and dry agent (carbon dioxide, dry chemical powder). Reaction between water and hot isocyanates may be vigorous.
<b>Hazardous Combustion Products</b>	Carbon oxides, nitrogen oxides, isocyanates vapours and hydrogen cyanide.
<b>Firefighting Equipment</b>	Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.
<b>Unusual Fire or Explosion Hazards</b>	Combustible liquid. Containers may burst if overheated. Due to reaction with water producing CO <sub>2</sub> , a hazardous build-up of pressure could result if contaminated containers are re-sealed.

## 6. ACCIDENTAL RELEASE MEASURES

**Spills** In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective equipment including air-line respirator or self-contained breathing apparatus complying with Australian Standard AS 1716, protective clothing and nitrile or viton gloves. Evacuate general area and deny access to unnecessary and unprotected personnel. Ventilate area of leak or spill. Stop leak if safe to do so and contain spill. Absorb spillages onto sand, earth or any suitable adsorbent material. Leave to react for at least 30 minutes. Do not absorb onto sawdust or other combustible materials. Shovel into open-top drums for further decontamination. Wash the spillage area with water.

## 7. HANDLING AND STORAGE

**Handling** Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Provide adequate ventilation. Prohibit eating, drinking and smoking in contaminated areas.

**Storage** Store in a cool, dry, well-ventilated area away from direct sunlight. Keep containers tightly closed when not in use. Vapour is heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Protect against physical damage. Inspect regularly for damage or leaks. Keep away from frost and moisture. If a container is contaminated, do not reseal it. Due to reaction with water producing CO<sub>2</sub>, a hazardous build-up of pressure could result if contaminated containers are resealed. Store away from alcohols, amines, acids, alkalis, sources of heat or ignition.

**Suitable containers:** stainless steel or mild steel.

**Unsuitable containers:** copper, copper alloy and galvanised surfaces.

Classified as a C2 (Combustible liquid) for the purpose of storage and handling in accordance with the Australian Standards AS1940 - The storage and handling of flammable and combustible liquids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Standards (Safe Work Australia)** **Isocyanates, all (as -NCO):**  
TWA: - ppm /0.02 mg/m<sup>3</sup>  
STEL: - ppm / 0.07 mg/m<sup>3</sup>

**Engineering Controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**Respiratory Protection** Wear a Type A (Organic vapour) respirator. If cutting or sanding with potential for dust generation, wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator.

**Eye Protection** Safety glasses with top and side shields. See Australian Standards AS 1336 for more information.

**Skin Protection** nitrile or viton gloves and overalls should be worn  
**Hygienic Practices** Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before

storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

**Additional Information:**

ISOCYANATES: Asthma sufferers, respiratory impaired or previously sensitised individuals are advised to avoid all exposure to isocyanates. Please note that products containing isocyanates often require the preparation of safe working procedures before product is used.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Viscous brown liquid
<b>Odour</b>	Slight odour
<b>Solubility in Water</b>	Insoluble
<b>Solubility in Organic Solvents</b>	Soluble
<b>Boiling Point</b>	>300°C decomposes
<b>Vapour Pressure (mmHg)</b>	$1 \times 10^{-6}$ kPa
<b>Relative Vapour Density (Air=1)</b>	No information available
<b>Specific Gravity (g/cm<sup>3</sup>)</b>	1.16 @20°C
<b>Flash Point (OC)</b>	225°C
<b>Flammable Limit – Lower</b>	No information available
<b>Flammable Limit – Upper</b>	No information available
<b>Auto-ignition Temperature</b>	>600°C
<b>Viscosity</b>	7000-9000 mPa.s

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable at room temperature. Reacts slowly with water to produce carbon dioxide which may rupture closed containers. The reaction accelerates at higher temperatures. Reaction between water and hot isocyanate may be vigorous.
<b>Incompatible Materials</b>	Water, alcohols, amines, bases and acids.
<b>Hazardous Decomposition Products</b>	Oxides of carbon/nitrogen, cyanides, isocyanates, hydrocarbons.
<b>Hazardous Polymerization Conditions to Avoid</b>	Will not occur High temperatures.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity Information available for the product:**

Harmful if inhaled.

**Information available for the ingredient(s):**

DIPHENYLMETHANE DIISOCYANATE (MDI)

Oral Toxicity (LD50) - 2200 mg/kg (mouse)

Inhalation Toxicity (LC50) - 178 mg/m<sup>3</sup> (rat)

POLYMETHYL POLYPHENYL ISOCYANATE

Oral Toxicity (LD50) - > 2000 mg/kg (rat)

Demral Toxicity (LD50) - > 9400 mg/kg (rabbit)

Inhalation Toxicity (LC50) - 0.49 mg/L/4 hours (rat)

**Skin** - Irritating to the skin. Contact may result in irritation, redness, rash and dermatitis.

**Eye** - Irritating to the eyes. Contact may result in irritation, lacrimation, pain and redness.

**Sensitisation** - May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to low concentrations of isocyanates may cause asthma-like symptoms, including tightness of the chest, coughing, wheezing and shortness of breath.

**Mutagenicity** - Insufficient data available to classify as a mutagen.

**Carcinogenicity** - Suspected of causing cancer.

**Reproductive** - Insufficient data available to classify as a reproductive toxin.

**STOT – single exposure** Over exposure may result in mucous membrane irritation of the respiratory tract, coughing and at high levels nausea, breathing difficulties with asthma-like symptoms, with wheezing and shortness of breath.

**STOT – repeated exposure** - May cause damage to lungs/respiratory system through prolonged or repeated inhalation exposure.

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b>	Avoid contaminating waterways. Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100mg/L in most sensitive species).
<b>Mobility</b>	A pond study showed gross contamination caused no significant toxic effects on a wide variety of flora in all trophic levels (including fish), no detectable diaminodiphenylmethane (MDA), and no evidence of bioaccumulation of MDI nor MDA. In air, the predominant degradation process is predicted to be a relatively rapid hydroxyl radical attack, by calculation and by analogy with related diisocyanates. Isocyanates will react with water producing carbon dioxide and forming a solid mass (polyurea) which is insoluble. Product will not accumulate or biomagnify in the environment.

**13. DISPOSAL CONSIDERATIONS**

<b>Disposal methods and containers</b>	For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result. Dispose according to applicable local and state government regulations.
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**14. TRANSPORT INFORMATION**

Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous goods by road or rail.

<b>UN Number</b>	Not Applicable
<b>Proper Shipping Name</b>	Not applicable
<b>Dangerous Goods Class</b>	Not applicable
<b>Hazchem Code</b>	Not applicable
<b>Packing Group</b>	Not applicable
<b>Special Precautions</b>	Not applicable

**15. REGULATORY INFORMATION**

**Poisons schedule (SUSDP):** Not applicable.

**AICS :** All ingredients of this material are listed on the Australian Inventory of Chemical Substance (AICS).

**16. OTHER INFORMATION**

**Reason for issue:** Revised to GHS requirements.

**References:** Supplier safety data sheets

**Version No. 3**

**Previous issue:** February 2014

**Abbreviations**

CAS # Chemical Abstract Service number - used to uniquely identify chemical compounds

CNS Central Nervous System

GHS Globally Harmonized System

IARC International Agency for Research on Cancer

LC50 Lethal Concentration, 50% / Median Lethal Concentration

LD50 Lethal Dose, 50% / Median Lethal Dose

mg/m<sup>3</sup> Milligrams per Cubic Metre

OEL Occupational Exposure Limit

pH relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm Parts Per Million

STEL Short-Term Exposure Limit

STOT-RE Specific target organ toxicity (repeated exposure)

STOT-SE Specific target organ toxicity (single exposure)

SUSMP Standard for the Uniform Scheduling of Medicines and Poisons

SWA Safe Work Australia

TLV Threshold Limit Value

TWA Time Weighted Average

This SDS should be made available to anybody that handles the product. The information is based on our current knowledge and describes health and safety requirements only.