



## SAFETY DATA SHEET TAMREZ 220 PART B

### SECTION 1: Identification: Product identifier and chemical identity

#### Product identifier

**Product name** TAMREZ 220 PART B  
**Product No.** 100053613 -61

#### Relevant identified uses of the substance or mixture and uses advised against

**Application** Epoxy Binder and Injection Resin

#### Details of the supplier of the safety data sheet

**Supplier** Normet Asia-Pacific Pty Ltd  
 10 Ashwin Parade  
 Torrensville,  
 SA 5031  
 Australia  
 +61 (0)8 8152 7700  
 +61 (0)8 8152 0667  
 SDS@NORMET.COM

#### Emergency telephone number

**Emergency telephone** 1-800-557346 (24 HOURS)

### SECTION 2: Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Not Classified  
**Health hazards** Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317  
**Environmental hazards** Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

#### Label elements

##### Hazard pictograms



##### Signal word

DANGER

##### Hazard statements

H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H410 Very toxic to aquatic life with long lasting effects.

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<b>Precautionary statements</b>	<p>P260 Do not breathe vapour/ spray.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER or doctor/ physician.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE, 3,6,9-triazaundecamethylenediamine
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**Other hazards**

**HSNO Classification**

**SECTION 3: Composition and information on ingredients**

**Mixtures**

<b>FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE</b>	<b>60-100%</b>
CAS number: 68953-36-6	
M factor (Acute) = 1    M factor (Chronic) = 1	
<b>Classification</b> Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	

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<b>3,6,9-triazaundecamethylenediamine</b>	<b>10-30%</b>
CAS number: 112-57-2	
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### Description of first aid measures

<b>General information</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention. Treat symptomatically.
<b>Inhalation</b>	IF INHALED: Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Do not induce vomiting.
<b>Ingestion</b>	IF SWALLOWED: Get medical attention immediately. If throat irritation or coughing persists, proceed as follows. Rinse mouth thoroughly with water. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Stop if the affected person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
<b>Skin Contact</b>	IF ON SKIN (or hair): Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists after washing. Remove contaminated clothing.
<b>Eye contact</b>	IF IN EYES: Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

#### Most important symptoms and effects, both acute and delayed

<b>General information</b>	Treat symptomatically. See Section 11 for additional information on health hazards.
<b>Inhalation</b>	Irritating.
<b>Ingestion</b>	May cause stomach pain or vomiting. May cause irritation. Gastrointestinal symptoms, including upset stomach.
<b>Skin contact</b>	May cause skin irritation.
<b>Eye contact</b>	Causes skin and eye irritation.

#### Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
<b>Specific treatments</b>	Treat symptomatically.

### SECTION 5: Firefighting measures

#### Extinguishing media

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**Suitable extinguishing media** Use fire-extinguishing media suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

### Special hazards arising from the substance or mixture

**Specific hazards** The product is not flammable. Irritating gases or vapours.

**Hazardous combustion products** Harmful gases or vapours.

### Advice for firefighters

**Protective actions during firefighting** No action shall be taken without appropriate training or involving any personal risk. Stop leak if safe to do so. If leakage cannot be stopped, evacuate area. Move containers from fire area if it can be done without risk.

**Special protective equipment for firefighters** Use air-supplied respirator, gloves and protective goggles.

**Hazchem Code** 2X

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Follow precautions for safe handling described in this safety data sheet.

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evaluate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

### Environmental precautions

**Environmental precautions** Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

### Methods and material for containment and cleaning up

**Methods for cleaning up** If leakage cannot be stopped, evacuate area. Move containers from spillage area. Large Spillages: Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Small Spillages: Absorb small quantities with paper towels and evaporate in a safe place. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

## SECTION 7: Handling and storage, including how the chemical may be safely used

### Precautions for safe handling

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<b>Usage precautions</b>	For professional users only. Do not handle until all safety precautions have been read and understood. Use only in well-ventilated areas. Protect from moisture. Keep container dry. Container must be kept tightly closed when not in use. Do not eat, drink or smoke when using this product.
<b>Advice on general occupational hygiene</b>	Do not eat, drink or smoke when using this product. Provide eyewash station. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.

### Conditions for safe storage, including any incompatibilities

<b>Storage precautions</b>	Store at temperatures between 4°C and 30°C. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures. Store away from the following materials: Acids. Alkalis.
<b>Storage class</b>	Chemical storage.
<b>Specific end use(s)</b>	
<b>Specific end use(s)</b>	The identified uses for this product are detailed in Section 1.

## SECTION 8: Exposure controls and personal protection

### Exposure controls

#### Protective equipment



<b>Appropriate engineering controls</b>	This product is not to be used under conditions of poor ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Personal protection</b>	Use protective clothing, hand gloves and goggles.
<b>Eye/face protection</b>	Use safety glasses with side shields that are consistent with EN 166, or local equivalent, are recommended.
<b>Hand protection</b>	To protect hands from chemicals, gloves should comply with Australia/New Zealand Standard AS/NZS 2161. It is recommended that gloves are made of the following material: Nitrile rubber. Butyl rubber.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent skin contamination.
<b>Hygiene measures</b>	Wash hands thoroughly after handling. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product.
<b>Respiratory protection</b>	Combination filter, type A2/P3.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Coloured liquid.
<b>Colour</b>	Amber.
<b>Odour</b>	Amine.
<b>Odour threshold</b>	Not determined.

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<b>pH</b>	Not determined.
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Flammability Limit - Lower(%)</b>	Not applicable.
<b>Other flammability</b>	Not applicable.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	0.94 - 1.0
<b>Bulk density</b>	Not applicable.
<b>Solubility(ies)</b>	Not determined.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	300 - 500 mPa s @ 20°C
<b>Explosive properties</b>	Not applicable.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Not applicable.

### SECTION 10: Stability and reactivity

<b>Reactivity</b>	Reacts with water and moisture in the air
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	The following materials may react with the product: Water, moisture.
<b>Conditions to avoid</b>	Avoid exposure to high temperatures or direct sunlight.
<b>Materials to avoid</b>	Avoid contact with the following materials: Strong alkalis. Alcohols.
<b>Hazardous decomposition products</b>	Heating may generate the following products: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Nitrous gases (NO <sub>x</sub> ).

### SECTION 11: Toxicological information

#### Information on toxicological effects

**Toxicological effects** No information available.

#### Acute toxicity - oral

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<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b>ATE oral (mg/kg)</b>	5,000.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b>ATE dermal (mg/kg)</b>	11,000.0
<b><u>Acute toxicity - inhalation</u></b>	
<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Causes severe burns.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Causes serious eye damage.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	May cause an allergic skin reaction.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Not available.
<b>Genotoxicity - in vivo</b>	Not available.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Based on available data the classification criteria are not met.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not anticipated to present an aspiration hazard, based on chemical structure.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	May cause irritation.
<b>Skin Contact</b>	Causes severe skin burns and eye damage.
<b>Eye contact</b>	Causes severe skin burns and eye damage.
<b><u>Toxicological information on ingredients.</u></b>	

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<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Causes severe burns.
<b><u>Serious eye damage/irritation</u></b>	

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**Serious eye damage/irritation** Causes serious eye damage.

**Skin sensitisation**

**Skin sensitisation** May cause an allergic skin reaction.

**3,6,9-triazaundecamethylenediamine****Acute toxicity - oral**

**Notes (oral LD<sub>50</sub>)** Harmful if swallowed.

**ATE oral (mg/kg)** 500.0

**Acute toxicity - dermal**

**Notes (dermal LD<sub>50</sub>)** Harmful in contact with skin.

**ATE dermal (mg/kg)** 1,100.0

**Skin corrosion/irritation**

**Skin corrosion/irritation** Causes severe burns.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Causes serious eye damage.

**Skin sensitisation**

**Skin sensitisation** May cause an allergic skin reaction.

**SECTION 12: Ecological information**

**Ecotoxicity** The product contains a substance which is very toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**Ecological information on ingredients.****FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE**

**Ecotoxicity** Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

**3,6,9-triazaundecamethylenediamine**

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

**Toxicity** No information available.

**Acute aquatic toxicity**

**Acute toxicity - fish** No specific test data are available.

**Acute toxicity - aquatic invertebrates** No specific test data are available.

**Ecological information on ingredients.****FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE****Acute aquatic toxicity**

**LE(C)<sub>50</sub>** 0.1 < L(E)C<sub>50</sub> ≤ 1

**M factor (Acute)** 1



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### Chronic aquatic toxicity

**M factor (Chronic)** 1

#### Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

#### Bioaccumulative potential

**Bioaccumulative Potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

#### Mobility in soil

**Mobility** No data available.

#### Other adverse effects

**Other adverse effects** None known.

### SECTION 13: Disposal considerations

#### Waste treatment methods

**General information** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste is classified as hazardous waste.

**Disposal methods** Dispose of contents/container in accordance with national regulations. Waste is classified as hazardous waste.

### SECTION 14: Transport information

#### UN number

**UN No. (ADG)** 1760

**UN No. (IMDG)** 1760

**UN No. (ICAO)** 1760

#### UN proper shipping name

**Proper shipping name (ADG)** CORROSIVE LIQUID, N.O.S. (CONTAINS FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE, 3,6,9-triazaundecamethylenediamine)

**Proper shipping name (IMDG)** CORROSIVE LIQUID, N.O.S. (CONTAINS FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE, 3,6,9-triazaundecamethylenediamine)

**Proper shipping name (ICAO)** CORROSIVE LIQUID, N.O.S. (CONTAINS FATTY ACIDS TALL OIL REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE, 3,6,9-triazaundecamethylenediamine)

#### Transport hazard class(es)

**ADG class** 8

**ADG classification code** C9

**ADG label** 8

**IMDG class** 8

**ICAO class/division** 8

## TAMREZ 220 PART B

### Transport labels



### Packing group

ADG packing group	II
IMDG packing group	II
ICAO packing group	II

### Environmental hazards

#### Environmentally hazardous substance/marine pollutant



### Special precautions for user

EmS	F-A, S-B
Hazchem Code	2X

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

**Guidance** Isocyanates: Health hazards and precautionary measures EH16.  
Workplace Exposure Limits EH40.

#### Inventories

##### EU - EINECS/ELINCS

All the ingredients are listed or exempt.

### SECTION 16: Any other relevant information

**Abbreviations and acronyms used in the safety data sheet**

- ADG: Australian dangerous goods code
- IATA: International air transport association.
- IMDG: International maritime dangerous goods.
- LC<sub>50</sub>: Lethal concentration to 50 % of a test population.
- LD<sub>50</sub>: Lethal dose to 50% of a test population (median lethal dose).
- NOEC: No observed effect concentration.
- vPvB: Very persistent and very bioaccumulative.
- PBT: Persistent, bioaccumulative and toxic substance.
- UN: United Nations.

- CAS: Chemical abstracts service.
- GHS: Globally harmonized system.

**General information** Only trained personnel should use this material.

**Revision date** 6/10/2020

**TAMREZ 220 PART B**

<b>Revision</b>	2
<b>SDS No.</b>	6871
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.