Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE CR 4200
known as MACROPLAST CR 4200

Intended use: 2-Component polyurethane adhesive

Supplier:
Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia

Phone: +61 (3) 9724 6444

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER: 1800 032 379

Section 2. Hazards identification

Classification of the substance or mixture
Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Hazard Category</th>
<th>Route of Exposure</th>
<th>Target organ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Category 4</td>
<td>Inhalation</td>
<td></td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Category 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious eye irritation</td>
<td>Category 2A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitizer</td>
<td>Category 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin sensitizer</td>
<td>Category 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target Organ Systemic Toxicant - Single exposure</td>
<td>Category 3</td>
<td>respiratory tract irritation</td>
<td></td>
</tr>
<tr>
<td>Target Organ Systemic Toxicant - Repeated exposure</td>
<td>Category 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hazard pictogram:

Signal word: Danger
Hazard statement(s):
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.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):
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 hands thoroughly after handling.
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.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
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.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Classification of material Xn - Harmful Xi - Irritant

Risk phrases:
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitization by inhalation and skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases:
S23 Do not breathe vapour.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and soap.
S37/39 Wear suitable gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46 If swallowed, seek medical advice immediately and show this container or label.

Dangerous Goods information:
Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Signal word:
HAZARDOUS
Section 3. Composition / information on ingredients

General chemical description: Mixture
Polyurethane prepolymer with isocyanate groups

Type of preparation: Hardening component of a 2-component PU adhesive

Identity of ingredients:

<table>
<thead>
<tr>
<th>Chemical ingredients</th>
<th>CAS-No.</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>o-(p-Isocyanatobenzyl)phenyl isocyanate</td>
<td>5873-54-1</td>
<td>30–60 %</td>
</tr>
<tr>
<td>non hazardous ingredients</td>
<td></td>
<td>30–60 %</td>
</tr>
</tbody>
</table>

Section 4. First aid measures

Ingestion: Rinse mouth, do not induce vomiting, consult a doctor.

Skin: Immediately remove soiled or soaked clothing.
Immediately wash skin thoroughly with soap and water.
Seek medical advice.

Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Inhalation: Move to fresh air.
Seek medical advice.

First Aid facilities: Eye wash and safety shower
Normal washroom facilities

Medical attention and special treatment: Treat symptomatically.
Exposed persons should be kept under medical observation for at least 48 hours because delayed effects may occur.

Section 5. Fire fighting measures

Suitable extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Improper extinguishing media: High pressure waterjet

Decomposition products in case of fire:
In case of fire toxic gases can be released.
Isocyanates.
Oxides of nitrogen.
carbon monoxide
Carbon dioxide

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus.
Wear protective equipment.

Additional fire fighting advice: In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

Personal precautions: Remove sources of ignition.
Ensure adequate ventilation.
Avoid contact with skin and eyes.
Use personal protective equipment as described in Section 8.
Environmental precautions: Do not empty into drains / surface water / ground water.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of contaminated material as waste according to Section 13.

### Section 7. Handling and storage

**Precautions for safe handling:** Do not inhale vapors and fumes. Avoid skin and eye contact. Use only in well-ventilated areas. Wear suitable protective clothing, safety glasses and gloves. See advice in section 8

**Conditions for safe storage:** Ensure good ventilation/extraction. Store in a cool, dry place. Storage at 10 to 30°C is recommended. Keep away from heat and direct sunlight. Keep container tightly sealed. Must be stored in the facility for the dangerous goods

### Section 8. Exposure controls / personal protection

**National exposure standards:**

<table>
<thead>
<tr>
<th>Ingredient [Regulated substance]</th>
<th>form of exposure</th>
<th>TWA (ppm)</th>
<th>TWA (mg/m3)</th>
<th>Peak Limit. (ppm)</th>
<th>Peak Limit. (mg/m3)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOCYANATES, ALL (AS NCO) 5873-54-1</td>
<td></td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISOCYANATES, ALL (AS NCO) 5873-54-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.07</td>
</tr>
</tbody>
</table>

**Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust generated from the handling of this product.

**Eye protection:** Wear chemical goggles.

**Skin protection:** Use of protective coveralls and long sleeves is recommended. Use impervious gloves.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

**Respiratory protection:** If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

### Section 9. Physical and chemical properties

**Appearance:** Pale yellow liquid

**Odor:** Characteristic

**Flash point:** Not available.

**Density:** 1.17 - 1.27 g/cm³

**Solubility in water:** Not miscible (20 °C)
Section 10. Stability and reactivity

Stability: Stable under normal conditions of temperature and pressure.

Conditions to avoid: Keep away from open flames, hot surfaces and sources of ignition. Avoid moisture.

Incompatible materials: Alkali metals
Alkalis.
Amines.
Oxidizing agents.

Hazardous decomposition products: In case of fire toxic gases can be released.
Isocyanates.
Oxides of nitrogen.
carbon monoxide
carbon dioxide

Hazardous polymerization: Exothermic. Contact with moisture, other materials which can react with isocyanates, or temperatures above 204.4°C (400°F), may cause polymerization.

Section 11. Toxicological information

Health Effects:
Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Skin: Irritating to skin.
Symptoms may include redness, edema, drying, defatting and cracking of the skin.
May cause skin sensitization.
Eyes: Causes eye irritation.
Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Inhalation: Harmful if inhaled; may cause delayed lung damage.
This product is irritating to the respiratory system.
Vapours may cause drowsiness and dizziness.
May cause allergic respiratory reaction.

Aggrivated med. condition: Pre-existing skin or lung allergies may increase the chance of developing exaggerated allergic symptoms from exposure to this product.

Carcinogenicity: Category 2 (Carcinogen), Suspected of causing cancer.

Acute toxicity:

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Value type</th>
<th>Value</th>
<th>Route of application</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>o-(p-Isocyanatobenzyl)phenyl isocyanate 5873-54-1</td>
<td>LD50 LD50</td>
<td>&gt; 2,000 mg/kg &gt; 9,400 mg/kg</td>
<td>oral dermal</td>
<td>rat rabbit</td>
<td>EU Method B.1 (Acute Toxicity (Oral)) OECD Guideline 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
</tbody>
</table>
Repeated dose toxicity:

<table>
<thead>
<tr>
<th>Hazardous components CAS-No.</th>
<th>Result</th>
<th>Route of application</th>
<th>Exposure time / Frequency of treatment</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>( o-(p-\text{Isocyanatobenzyl})\text{phenyl isocyanate} ) 5873-54-1</td>
<td></td>
<td>inhalation: aerosol</td>
<td>main: 2 y; satellite: 1 y6 h/d; 5 d/w</td>
<td>rat</td>
<td>OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

General ecological information: Do not empty into drains, soil or bodies of water.

Toxicity:

<table>
<thead>
<tr>
<th>Hazardous components CAS-No.</th>
<th>Value type</th>
<th>Value</th>
<th>Acute Toxicity Study</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>( o-(p-\text{Isocyanatobenzyl})\text{phenyl isocyanate} ) 5873-54-1</td>
<td>LC50</td>
<td>&gt; 1,000 mg/l</td>
<td>Fish</td>
<td>96 h</td>
<td>Danio rerio</td>
<td>OECD Guideline 203 (Fish, Acute Toxicity Test)</td>
</tr>
</tbody>
</table>

Bioaccumulative potential / Mobility in soil:

<table>
<thead>
<tr>
<th>Hazardous components CAS-No.</th>
<th>LogKow</th>
<th>Bioconcentration factor (BCF)</th>
<th>Exposure time</th>
<th>Species</th>
<th>Temperature</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>( o-(p-\text{Isocyanatobenzyl})\text{phenyl isocyanate} ) 5873-54-1</td>
<td>5.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 13. Disposal considerations

Waste disposal of product: Collection and delivery to recycling enterprise or other registered elimination institution.

Disposal for uncleaned package: After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated. Dispose of in accordance with local and national regulations.

Section 14. Transport information

Road and Rail Transport:

Dangerous Goods information: Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

General information: Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
Section 15. Regulatory information

SUSMP Poisons Schedule
None

AICS:
All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICS).

Section 16. Other information

Abbreviations/acronyms:
ADGC - Australian Dangerous Goods Code
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
STEL - Short term exposure limit
TWA - Time weighted average

Reason for issue:
Reviewed SDS. Reissued with new date. Involved chapters: 1 - 16

Date of previous issue:
03.02.2014

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