# SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION

### 1.1 Product identifier

| | |
|---|---|
| Product number and name | **87004** Wondafix Car, 30ml hanging pack |
| | **87007** Wondafix, 30ml hanging pack |
| | **67004** Wondafix Auto, 27ml bubble pack |
| | **67007** Wondafix, 27ml bubble pack |
| Product type | Adhesive |

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

| | |
|---|---|
| Relevant identified uses | Consumer use |
| Uses advised against | No specific uses advised against.<br>Avoid eye contact, inhalation of vapours and ingestion. |

### 1.3 Details of the Supplier of the Safety Data Sheet

| | |
|---|---|
| Manufactured by | Pratley Polymers Manufacturing (Proprietary) Ltd |
| | 14 Jackson Street, Factoria, Krugersdorp, 1745 |
| | South Africa |
| | Tel: +27-11-955-2190 Fax: +27-11-955-3918 |
| | www.pratleyadhesives.com |
| Supplied in South Africa by | Pratley (Proprietary) Ltd |
| | 14 Jackson Street, Factoria, Krugersdorp, 1745 |
| | South Africa |
| | Tel: +27-11-955-2190 Fax: +27-11-955-3918 |
| | sales@pratley.com |
| | www.pratleyadhesives.com |
| Supplied outside South Africa by | Pratley Exporting (Proprietary) Ltd |
| | 14 Jackson Street, Factoria, Krugersdorp, 1745 |
| | South Africa |
| | Tel: +27-11-955-2190 Fax: +27-11-955-3918 |
| | exports@pratley.com |
| | www.pratleyadhesives.com |

### 1.4 Emergency Telephone Number

| | |
|---|---|
| South Africa | +27-11-955-2190 during office hours |
| | 10117 All emergencies |
| | +27-21-689-5227 Poisons Information Centre |

| | |
|---|---|
| Europe | 112 All emergencies |
| | For detailed poison information, the national poison center, if available, should be contacted. |
| Australia | 000 All emergencies |
| | 13 11 26 NSW Poison Information Centre |
| New Zealand | 111 All emergencies |
| | 0800 764 766 National Poisons Centre (poisons@otago.ac.nz) |
| Americas | 911 All emergencies |
| | 1-800-222-1222 Poisons Help (PoisonHelp.org) |

## SECTION 2 – HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

2.1.1 Classification

| Material | Class | Category | Hazard Code and Statement | |
|---|---|---|---|---|
| RESIN | Skin Corrosion/Irritation | 2 | H315 | Causes skin irritation. |
| | Eye Corrosion/Irritation | 2 | H319 | Causes serious eye irritation. |
| | Skin Sensitizer | 1 | H317 | May cause an allergic skin reaction. |
| | Reproductive Toxicity | 2 | H361 | Suspected of damaging fertility or the unborn child. |
| | Aquatic Toxicity - Acute | 3 | H402 | Harmful to aquatic life. |
| | Aquatic Toxicity - Chronic | 2 | H411 | Toxic to aquatic life with long lasting effects. |
| | HSNO Classification: HSR002670 (6.3A, 6.4A, 6.5B, 6.8B, 9.1B, 9.1D) | | | |
| HARDENER | Skin Corrosion/Irritation | 1 | H314 | Causes severe skin burns and eye damage. |
| | Eye Corrosion/Irritation | 2 | H319 | Causes serious eye irritation. |
| | Skin Sensitizer | 1 | H317 | May cause an allergic skin reaction. |
| | Acute Toxicity - Oral | 5 | H303 | May be harmful if swallowed. |
| | Acute Toxicity - Dermal | 5 | H313 | May be harmful in contact with skin. |
| | Aquatic Toxicity - Chronic | 3 | H412 | Harmful to aquatic life with long lasting effects. |
| | HSNO Classification: HSR002670 (6.1E, 6.4A, 6.5B, 8.2A, 9.1C) | | | |
| CURED | Not classified as hazardous. | | | |

2.1.2 Additional information

### 2.2 Label Elements

Hazard Pictograms

not required on label

**Epoxy Resin**
**Nonylphenol**
**Dimethyldicyane**
**Polymercaptan**

The technical name has been replaced on the label by a name / identification that is easier for a consumer to identify. See section 16 for a comparison of the technical and alternative names used.

Signal Word **DANGER**

| | | |
|---|---|---|
| Hazard Statements | H303 | May be harmful if swallowed. |
| | H313 | May be harmful in contact with skin. |
| | H314 | Causes severe skin burns and eye damage. |
| | H317 | May cause an allergic skin reaction. |
| | *H319* | *Causes serious eye irritation.* |
| | *H361* | *Suspected of damaging fertility or the unborn child.* *(not required on label)* |
| | *H402* | *Harmful to aquatic life.* |
| | H411 | Toxic to aquatic life with long lasting effects. |
| Precautionary Statements | P101 | If medical advice is needed, have product container or label at hand. |
| | P102 | Keep out of reach of children. |
| | P103 | Read label before use. |
| | *P201* | *Obtain special instructions beforec use.* *(not required on label)* |
| | *P202* | *Do not handle until all safety precautions have been read and understood.* *(not required on label)* |
| | *P260* | *Do not breathe dust/gas/mist/vapours/spray.* |
| | *P261* | *Avoid breathing dust/gas/mist/vapours/spray.* |
| | P264 | Wash hands thoroughly after handling. |
| | *P272* | *Contaminated work clothing should not be allowed out of the workplace.* |
| | *P273* | *Avoid release to the environment.* |
| | *P280* | *Wear protective gloves/eye protection.* |
| | P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. |
| | *P301+P330+P331* | *IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.* |
| | P302+P312 | IF ON SKIN: Call a POISON CENTER or doctor / physician if you feel unwell. |
| | *P302+P352* | *IF ON SKIN: Wash with plenty of soap and water.* |
| | *P303+P361+P353* | *IF ON SKIN (or hair): Remove / take off all contaminated clothing. Rinse skin with water / shower.* |
| | *P333+P313* | *If skin irritation or rash occurs: Get medical advice/attention.* |
| | *P363* | *Wash contaminated clothing before reuse.* |
| | *P305+P351+P338* | *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue* |
| | *P337+P313* | *If eye irritation persists: Get medical advice / attention.* |
| | *P308+P313* | *If exposed or concerned: Get medical advice / attention.* *(not required on label)* |
| | *P310* | *Immediately call a POISON CENTER or doctor / physician.* |
| | *P321* | *Specific treatment (see…on this label)* |
| | *P362+P364* | *Take off contaminated clothing and wash before reuse.* |
| | *P391* | *Collect spillage* |
| | *P405* | *Store locked up.* |
| | P501 | Dispose of contents/container in accordance with local regulations. |

*Since only 6 precuationary statements are pemitted on the label, the Precautionary statements in italics have been omitted from the label after consultation with the ECHA Guidance on Labelling and Packaging.*

Supplemental Hazard information Not applicable

### 2.3 Other Hazards

None known.

## SECTION 3 – Composition / Information on Ingredients

### 3.2 Mixtures

| Hazardous Ingredients | % [weight] | CAS No. | EC No. (Index No.) | Name | Classification | H Code(s) |
|---|---|---|---|---|---|---|
| RESIN | 35-45 | 25068-38-6 | 500-033-5 (603-074-00-8) | Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin, MW ≤ 700 | Skin irritation - 2<br>Eye irritation - 2<br>Skin sensitizer - 1<br>Aquatic Chonic - 2 | H315<br>H319<br>H317<br>H411 |
| | <2,5 | 84852-15-3 | 284-325-5 (601-053-00-8) | 4-nonylphenol, branched | Acute toxicity (oral) - 4<br>Skin corrosion - 1B<br>Aquatic Acute - 1<br>Aquatic Chronic - 1<br>Reproductive Toxicity - 2 | H302<br>H314<br>H400<br>H410<br>H361 |
| HARDENER | 30-50 | 72244-98-5 | 615-735-8 | Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega. hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether | Skin sensitizer - 1<br>Aquatic Chronic - 3 | H317<br>H412 |
| | <5 | 6864-37-5 | 229-962-1 (612-110-00-1) | 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | Acute toxicity (oral) - 4<br>Acute toxicity (dermal) - 3<br>Acute toxicity (inhalation) - 3<br>Skin corrosion - 1A<br>Aquatic Chronic - 2 | H302<br>H311<br>H331<br>H314<br>H411 |
| | <1,5 | 6674-22-2 | 229-713-7 | 1,8-diazobicyclo[5.4.0]undec-7-ene | Acute toxicity (oral) - 3<br>Skin corrosion - 1B<br>Eye corrosion - 1 | H301<br>H314<br>H318 |
| | <0,5 | 538-75-0 | 208-704-1 | dicyclohexylcarbodiimide | Acute toxicity (oral) - 4<br>Acute toxicity (dermal) - 3<br>Eye corrosion - 1<br>Skin sensitizer - 1 | H302<br>H311<br>H318<br>H317 |

For full text of H-Statements: see SECTION 16

## SECTION 4 – First Aid Measures

### 4.1 Description of First Aid Measures

Skin Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

| | |
|---|---|
| Eye | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Inhalation | Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artifical respiration or oxygen by trained personnel. It may be dangerous to give mouth-to-mouth resuscitation. Get medical attentionif adverse health effects persist or are severe. if unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband. |
| Ingestion | Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects perist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in the recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband. |

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

| | | |
|---|---|---|
| Skin | RESIN | Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| | HARDENER | Brief contact may cause skin irritation. Symptoms may include pain and local redness. May cause an allergic skin reaction. |
| Eyes | RESIN | No known significant effect or critical hazards. |
| | HARDENER | Due to the viscous state of the material eye contact is unlikely during normal use. May cause irritation with corneal injury. |
| Inhalation | RESIN | No known significant effect or critical hazards. |
| | HARDENER | No relevant data found. At room temperature, exposure to vapour is minimal due to low volatility. |
| Ingestion | RESIN | No known significant effect or critical hazards. |
| | HARDENER | Low toxicity if swallowed. Swallowing may result in gastrointestinal irritation or ulceration. Swallowing may result in burns of the mouth and throat. |

See SECTION 11 for more detailed information on health effects and symptoms.

## SECTION 5 – Fire Fighting Measures

### 5.1 Extinguising media

| | |
|---|---|
| Suitable | Water fog, foam, extinguishing powder or carbon dioxide. |
| Not suitable | Do not use water jet. |

### 5.2 Special hazards arising from the subtance or mixture

| | | |
|---|---|---|
| Hazards from the substance or mixture | RESIN | This material is toxic to aquatic life with long term effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| | HARDENER | No known significant hazards. |
| Hazardous thermal decomposition products | RESIN | Carbon oxides and traces of other potentially harmful products. |
| | HARDENER | Carbon oxides and traces of other potentially harmful products. |

### 5.3 Advice for fire-fighters

| | |
|---|---|
| Special precautions for fire-fighters | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

## SECTION 6 – Accidental Release Measures

### 6.1 Personal precuations, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not walk through spilled material. Avoid breathing vapour or mist. Provide adequate ventilation.

6.1.1 For non-emergency personnel

| | | |
|---|---|---|
| Protective equipment required | Skin | General purpose non-permeable gloves and overalls. |
| | Face / Eyes | Safety goggles. |
| | Clothing | No special requirements. Wash clothing thoroughly if contaminated. |
| | Ventilation | If ventilation is poor use a self-contained breathing apparatus suitable for organic vapours. |
| Emergency procedure | Collect and dispose of. | |

6.1.2 For emergency personnel

| | | |
|---|---|---|
| Protective equipment required | Skin | General purpose non-permeable gloves and overalls. |
| | Face / Eyes | Safety goggles. |
| | Clothing | No special requirements. Wash clothing thoroughly if contaminated. |
| | Ventilation | If ventilation is poor use a self-contained breathing apparatus suitable for organic vapours. |
| Emergency procedure | Collect and dispose of. | |

### 6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, air). May be harmful to the environment if released in large quantities.

### 6.3 Methods and material for containment and cleaning up

6.3.1 Containment procedure

Due to the viscous nature of the material, containment is not usually necessary. If released into water, immediate collection by a suitably sized scoop is needed.

6.3.2 Clean-up procedure

Small amounts should be cured by mixing the hardener and resin together and then disposed of in accordance with local regulations.
Large amounts would need to be incinerated in accordance with local regulations.

6.3.3 Additional Information

See SECTION 13 for disposal considerations.

### 6.4 Reference to other sections

See SECTION 13 for disposal considerations.

## SECTION 7 – Handling and storage

### 7.1 Precautions for safe handling

7.1.1 Recommendations for safe handling and storage

Do not eat, drink or smoke where this material is stored. Avoid release to the environment. Keep in the original container and keep tightly closed when not in use. Empty containers retain product residue and may be hazardous. Do not reuse containers.

7.1.2 Advice on general occupational hygiene

Put on appropriate personal protective equipment (see SECTION 8). Do not eat, drink or smoke when working with this material. Wash hands and face before eating, drinking or smoking. Persons with a history of skin sensitization problems should not use this product. Do not get in eyes. Avoid skin contact as much as possible. Do not ingest. Avoid breathing vapours.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in the original container protected from sources of ignition or direct sunlight in a dry, cool (10-40°C) and well-ventilated area, away from incompatible materials, food and drink. Keep container tightly closed and sealed until ready to use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Incompatible materials: Strong oxidizing agents, sodium hydroxide, acids, alcohols

Packaging material: Use original container.

### 7.3 Specific end use(s)

Not applicable.

## SECTION 8 – Exposure Control / Personal Protection

### 8.1 Control parameters

The DNEL (Derived No-Effect Level) for humans by inhalation, ingestion and dermal routes of exposure and the PNEC (Predicted No-Effect Concentration) for environmental exposure given below are not intended to be directly used for setting workplace or general population exposure limits. Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health based-OEL for that chemical substance. Further, although DNELs (and PNEC's) are an indication of setting risk measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed government OELs.

| Ingredient (CAS No,) | Route of exposure | | Exposure Limit | |
|---|---|---|---|---|
| | | | Workers | Consumers |
| Reaction product: bisphenol-A-(epichlorhydrin) (**25068-38-6**) | Oral | ST, systemic | not applicable | DNEL: 0.75 mg/kg bw/day |
| | | LT, systemic | not applicable | DNEL: 0.75 mg/kg bw/day |
| | Dermal | ST, systemic | DNEL: 8.3 mg/kg bw/day | DNEL: 3.6 mg/kg bw/day |
| | | LT, systemic | DNEL: 8.3 mg/kg bw/day | DNEL: 3.6 mg/kg bw/day |
| | Inhalation | ST, systemic | DNEL: 12.3 mg/m$^3$ | DNEL: 0.75 mg/m$^3$ |
| | | LT, systemic | DNEL: 12.3 mg/m$^3$ | DNEL: 0.75 mg/m$^3$ |

| | | | | |
|---|---|---|---|---|
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.- hydro-.omega. hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether **(72244-98-5)** | Oral | | not applicable | |
| | Dermal | | | |
| | Inhalation | | | |
| 4-nonylphenol, branched **(84852-15-3)** | Oral | | | |
| | Dermal | LT, systemic | DNEL: 7.5 mg/kg bw/day | DNEL: 3.8 mg/kg bw/day |
| | | ST, systemic | DNEL: 15 mg/kg bw/day | |
| | Inhalation | LT, systemic | DNEL: 500 µg/m$^3$ | DNEL: 400µg/m$^3$ |
| | | ST, systemic | DNEL: 1mg/m$^3$ | |
| 2,2'-dimethyl-4,4'methylenebis(cyclohexyl amine) **(6864-37-5)** | Oral | LT, systemic | not applicable | DNEL: 8 µg/kg bw/day |
| | Dermal | LT, systemic | DNEL: 50 µg/kg bw/day | |
| | Inhalation | LT, systemic | DNEL: 600 µg/m$^3$ | |
| 1,8-diazobicyclo[5.4.0]undec-7-ene **(6674-22-2)** | Oral | LT, systemic | not applicable | DNEL: 1,5 mg/kg bw/day |
| | Dermal | LT, systemic | DNEL: 3 mg/kg bw/day | DNEL: 1,5 mg/kg bw/day |
| | Inhalation | LT, systemic | DNEL: 10.6 mg/m$^3$ | DNEL: 2.6 mg/m$^3$ |
| dicyclohexyl carbodiimide **(538-75-0)** | Oral | LT, systemic | not applicable | DNEL: 17 µg/kg bw/day³ |
| | | ST, systemic | not applicable | No hazard identified |
| | Dermal | LT, systemic | DNEL: 34.28 µg/kg bw/day | DNEL: 17 µg/kg bw/day |
| | | ST, systemic | No hazard identified | No hazard identified |
| | Inhalation | LT, systemic | DNEL: 211,6 µg/m$^3$ | DNEL: 52,17 µg/m$^3$ |
| | | ST, systemic | No hazard identified | No hazard identified |

Where no value is given, the information is not available or no limit has been set.

**PNECs**

| | Fresh water | Freshwater sediments | Marine water | Marine water sediments | Food chain | Sewage treatment | Soil (agricultural) | Air | Intermittent releases |
|---|---|---|---|---|---|---|---|---|---|
| Reaction product: bisphenol-A-(epichlorhydrin) **(25068-38-6)** | | | | | | | | | |
| | 3 µg/l | 0.5 mg/kg dwt | 0.3 µg/l | 0.5 mg/kg dwt | | 10 mg/l | | | 0.013 mg/l |
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.- hydro-.omega. hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether **(72244-98-5)** | | | | | | | | | |
| | | | | | | | | | |
| 4-nonylphenol, branched **(84852-15-3)** | | | | | | | | | |
| | 644ng/L | 4.62mg/kg dw | 548ng/L | 1.23mg/kg dw | 2.36mg/kg food | 9.5mg/L | 2.3mg/kg dw | no hazard identified | 170ng/L |
| 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) **(6864-37-5)** | | | | | | | | | |
| | 400 µg/L | 17,4 mg/kg dw | 40 µg/L | 17,4 mg/kg dw | 556 µg/kg food | 1,6 mg/L | 4,56 mg/kg dw | no hazard identified | 46 µg/L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,8-diazobicyclo[5.4.0]undec-7-ene **(6674-22-2)** | | | | | | | | | |
| | 240 µg/L | 1.46 mg/kg dw | 24 µg/L | 146 µg/kg dw | no potential for bio-accumulation | 13 mg/L | 152 µg/kg dw | no hazard identified | 500 µg/L |
| dicyclohexylcarbodiimide **(538-75-0)** | | | | | | | | | |
| | 7 ng/L | 5.914 µg/kg dw | 0.7 ng/L | 591.39 ng/kg dw | 3.33 mg/kg food | 100 µg/L | 6.96 µg/kg dw | No hazard identifed | 70 ng/L |

Where no value is given, the information is not available or no limit has been set.

### 8.2 Exposure controls

8.2.1 Appropriate engineering controls

None required. Use in a well-ventilated area. If ventilation is poor use a self-contained breathing apparatus suitable for organic vapours.

8.2.2 Personal Protection

| | |
|---|---|
| Skin | General purpose non-permeable gloves and overalls. |
| Face / Eye | Avoid eye contact. Do not touch or rub eyes after contact with product. Wash hands thoroughly with soap and water first. |
| Inhalation | Inhalation is unlikely due to the nature of the material. Use outdoors or in a well ventilated area. |
| Ingestion | Do not eat, drink or smoke while working with this product. Wash hands thoroughly with soap and water after using this product. Keep away from children. |
| Thermal | None required when used as instructed. |
| Other | Always wash hands with soap and water after use. |

8.2.3 Environmental Protection

Avoid release to the environment. Contain and dispose of in accordance with local regulations.

## SECTION 9 – Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Appearance | RESIN | Milky clear liquid |
| | HARDENER | Yellow liquid |
| | | Black liquid (AUTO / CAR) |
| Odour | RESIN | Not determined |
| | HARDENER | Like ammonia |
| Odour threshold | No data available. | |
| pH | No data available. | |
| Melting point / Freezing point (°C) | Not data available. | |
| Boiling point, initial and range (°C) | No data available. | |
| Flash point (°C) | No data available. Based on ingredients expected to be >100°C. | |
| Evaporation rate | No data available. Not expected to evaporate. | |
| Flammability | Not flammable. | |
| Flammability / Explosive limits | No data available. | |
| Vapour pressure | No data available. | |

| | | |
|---|---|---|
| Vapour density | No data available. | |
| Density (at 23°C) | RESIN | 1.8 g/ml |
| | HARDENER | 1.0 g/ml |
| Solubility | RESIN | Insoluble in water |
| | HARDENER | Partially soluble in water. |
| Partition co-efficient : n-otonal / water | No data available. | |
| Auto-ignition temperature (°C) | No data available. | |
| Decomposition temperature (°C) | No data available. | |
| Viscosity (at 23°C) | RESIN | typically 55000 mPa.s |
| | HARDENER | typically 63000 mPa.s |
| Explosive properties | No data available. | |
| Oxidizing properties | No data available. | |

### 9.2 Other information

Not applicable

## SECTION 10 – Stability and Reactivity

### 10.1 Reactivity

RESIN Reacts with strong oxidising agents. Polymerises exothermically with amines, mercaptans and Lewis acids at ambient temperature and above. Polymerises in contact with caustic soda. Reacts exothermically with bases, ammonia, primary and secondary amines, alcohols, water and acids.

HARDENER No data available.

### 10.2 Chemical stability

RESIN Stable under recommended storage conditions.

HARDENER Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

RESIN Hazardous reactions may occur under certain conditions of storage or use.

HARDENER Hazardous reactions may occur under certain conditions of storage or use.

### 10.4 Conditions to avoid

RESIN Caustic soda (sodium hydroxide) can induce vigorous poymerization at temperatures around 200°C.

HARDENER Exposure to elevated temperatures can cause material to decompose. Reaction with carbon dioxide may form an amine carbamate. Product absorbs carbon dioxide from the air.

### 10.5 Incompatible materials

RESIN Strong oxidizing agents, sodium hydroxide.

HARDENER Strong oxidizing agents, acids, acrylates, alcohols, aldehydes, halogenated hydrocarbons, ketones, nitriles and metals such as brass, bronze, copper and copper alloys.

### 10.6 Hazardous decomposition products

RESIN Under normal conditions of storage and use, hazardous decomposition products should not be produced.

HARDENER Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 – Toxicological Information

### 11.1 Information on toxicological effects

| Ingredient (CAS No.) | Toxicological effect | Conditions | Findings |
|---|---|---|---|
| reaction product of bisphenol-A-(epichlorhydrin) (25068-38-6) | Acute Toxicity - oral | mouse and rat | $LD_{50}$: >2000 mg/kg bw |
| | Acute Toxicity - dermal | rat and rabbit | $LD_{50}$: >2000 mg/kg bw |
| | Acute Toxicity - inhalation | | Due to the very low vapour pressure, saturated atmosphere = 0,008ppb, meaningful acute studies could not be conducted. |
| | Skin Corrosion/Irritaion | OECD 404, rabbit, 4H occlusive exposure | Not a skin irritant |
| | Serious Eye Damage/Irritation | OECD 405 GLP | Not an eye irritant. (Score of 1.7) |
| | Skin Sensitizer | OECD 406, guinea pig | Skin sensitizer |
| | Respiratory Sensitizer | | No applicable data. No known significant effects or critical hazards. |
| | Germ Cell Mutagenicity | | No data available |
| | Carcinogenicity | OECD 453, male mice at 100mg/kg bw, female rats at 1000mg/kg bw, dermal | No evidence of carcinogenicity |
| | Reproductive Toxicity | OECD 416 GLP, two-generation rat, oral gavage at 750mg/kg bw | No adverse effects |
| | STOT - Single Exposure | | No applicable data. No known significant effects or critical hazards. |
| | STOT - Repeated Exposure | OECD 408, rat, oral | NOAEL: 50mg/kg/day |
| | | OECD 408, rat, 90-day dermal (5 days/week) | NOAEL: 100mg/kg/day |
| | Aspiration Hazard | | No applicable data. No known significant effects or critical hazards. |
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega. hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether (72244-98-5) | Acute Toxicity - oral | OECD 401, rat | $LD_{50}$: 2600 mg/kg bw/day |
| | Acute Toxicity - dermal | OECD 402, rabbit | $LD_{50}$: >10200 mg/kg bw/day |
| | Acute Toxicity - inhalation | rat | $LC_{50}$: >0,1mg/L air |
| | Skin Corrosion/Irritaion | OECD 404, rabbit | Not irritating |
| | Serious Eye Damage/Irritation | OECD 405, rabbit | Not irritating |
| | Skin Sensitizer | OECD 429, mousse | >3 LLNA, EC3 = 29% SI |
| | Respiratory Sensitizer | | Not sensitizing |

| | | | |
|---|---|---|---|
| | Germ Cell Mutagenicity | OECD 471 (Ames)<br>OECD 73 (Chromosome abberation)<br>OECD 476 (Micronucleaus) | Negative<br>Negative<br>Negative |
| | Carcinogenicity | | Not classifiable |
| | Reproductive Toxicity | | Not expected to cause reproductive or developmental effects |
| | STOT - Single Exposure | | Not classified |
| | STOT - Repeated Exposure | | Not clasified |
| | Aspiration Hazard | | Not an aspiration hazard |
| 4-nonylphenol, branched<br><br>(84852-15-3) | Acute Toxicity - oral | | No data available |
| | Acute Toxicity - dermal | | No data available |
| | Acute Toxicity - inhalation | | No data available |
| | Skin Corrosion/Irritation | | Corrosive |
| | Serious Eye Damage/Irritation | | irritating |
| | Skin Sensitizer | | No adverse effects |
| | Respiratory Sensitizer | | No data available |
| | Germ Cell Mutagenicity | | No data available |
| | Carcinogenicity | | No data available |
| | Reproductive Toxicity | rat, subacute, oral | NOEL: 300mg/kg bw/day |
| | STOT - Single Exposure | | No data available |
| | STOT - Repeated Exposure | | No data available |
| | Aspiration Hazard | | No data available |
| 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine)<br><br>(6864-37-5) | Acute Toxicity - oral | rat | $LD_{50}$: 320 mg/kg bw |
| | Acute Toxicity - dermal | rabbit | $LD_{50}$: 200 mg/kg bw |
| | Acute Toxicity - inhalation | rat | $LC_{50}$: 420 mg/$m^3$ |
| | Skin Corrosion/Irritation | | Corrosive |
| | Serious Eye Damage/Irritation | | Irreversible damage |
| | Skin Sensitizer | | No sensitizing |
| | Respiratory Sensitizer | | No data available |
| | Germ Cell Mutagenicity | In vitro | No adverse effects |
| | Carcinogenicity | | No data available |
| | Reproductive Toxicity | FERTILITY: Subchronic, rat<br>DEVELOPMENT: Subchronic, rabbit | On fertility - NOAEL 1.5 mg/kg bw/day<br>On development - NOAEC 9 mg/kg bw/day |
| | STOT - Single Exposure | | |

| | | | |
|---|---|---|---|
| | STOT - Repeated Exposure | subchronic, rat | Oral route - systemic effects: NOAEL 1.5 mg/kg bw/day<br>Inhalation route - systemic effects: NOAEC 12 mg/m³<br>Inhalation route - local effects: NOAEC 12 mg/m³ |
| | Aspiration Hazard | | No data available |
| 1,8-diazobicyclo[5.4.0]undec-7-ene<br><br>(6674-22-2) | Acute Toxicity - oral | rat | $LD_{50}$: 215 mg/kg bw |
| | Acute Toxicity - dermal | | No data available |
| | Acute Toxicity - inhalation | | No data available |
| | Skin Corrosion/Irritation | | Corrosive |
| | Serious Eye Damage/Irritation | | Irreversible damage |
| | Skin Sensitizer | | No data available |
| | Respiratory Sensitizer | | No data available |
| | Germ Cell Mutagenicity | | No data available |
| | Carcinogenicity | | No data available |
| | Reproductive Toxicity | | No data available |
| | STOT - Single Exposure | | No data available |
| | STOT - Repeated Exposure | subchronic, rat | Oral systemic NOAEL 20 mg/kg bw / day |
| | Aspiration Hazard | | No data available |
| dicyclohexyl carbodiimide<br><br>(538-75-0) | Acute Toxicity - oral | rat | $LD_{50}$: 110 mg/kg bw |
| | Acute Toxicity - dermal | guinea pig, 6 hours | $LD_{50}$: 10 mg/kg bw |
| | Acute Toxicity - inhalation | rat | $LD_{50}$: 159 mg/m$^3$ |
| | Skin Corrosion/Irritation | | Not irritating |
| | Serious Eye Damage/Irritation | | Irreversible damage |
| | Skin Sensitizer | | Sensitizing |
| | Respiratory Sensitizer | | No data available |
| | Germ Cell Mutagenicity | | Negative |
| | Carcinogenicity | | No data available |
| | Reproductive Toxicity | Subacute, rat | NOAEL 40 mg/kg bw/day |
| | STOT - Single Exposure | | No data available |
| | STOT - Repeated Exposure | Oral: subacute, rat | NOAEL 100 mg/kg bw/day |
| | | Dermal: Subchronic, rat | NOAEL 3 mg/kg bw/day |
| | Aspiration Hazard | | No data available |

## SECTION 12 – Ecological Information

### 12.1 Toxicity

| | |
|---|---|
| Acute Toxicity | Category 3 Harmful to aquatic life<br>based on incorporation of <2.5% Acute Toxicity Category 1 ingredients |
| Chronic Toxicity | Category 2 Toxic to aquatic life with long lasting effects<br>based on incorporation of >25% Chronic Toxicity Category 2 ingredients |

### 12.2 Persistance and degradability

No data available.

### 12.3 Bioaccumulative potential

| | |
|---|---|
| RESIN | No data available. |
| HARDENER | No data available. |

### 12.4 Mobility in soil

Not mobile in soil.

### 12.5 Results of PBT and vPvB assessment

No PBT or vPvB assessment has been carried out. Based on the ingredients which have a low potential to bioaccumulate, it is expected that this product is not a PBT.

### 12.6 Other adverse effects

None known.

## SECTION 13 – Disposal Considerations

### 13.1 Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may reatain some product residues. This material (uncured) and its container must be disposed of in a safe way.

| | |
|---|---|
| Small amounts (during personal use) | React the resin and hardener portions together and, once cured, dispose of in accordance with local regulations. |
| Large amounts | Contain and dispose of in accordance with local regulations. Mixing large amounts of resin and hardener together creates an exothermic reaction and care should be taken to avoid uncontrolled heating and possible fire. |
| EWC (Not cured) | **20 01 27** MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS: separately collected fractions: paint, inks, adhesives and resins containing dangerous substances |
| EWC (Cured) | **20 01 28** MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS: separately collected fractions: paint, inks, adhesives and resins other than those mentioned in 20 01 27 |

## SECTION 14 – Transport Information

| | 14.1 UN Number | 14.2 UN Proper Shipping Name | 14.3 Transport Hazard Class | 14.4 Packing Group |
|---|---|---|---|---|
| ADR | UN1760 | CORROSIVE LIQUID, N.O.S. 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | 8 | II |
| RID | UN1760 | CORROSIVE LIQUID, N.O.S. 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | 8 | II |
| ADN | UN1760 | CORROSIVE LIQUID, N.O.S. 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | 8 | II |
| IMO/IMDG | UN1760 | CORROSIVE LIQUID, N.O.S. 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | 8 | II |
| ICAO/IATA | UN1760 | CORROSIVE LIQUID, N.O.S. 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | 8 | II |

| | | |
|---|---|---|
| Tariff Code | 3506.10.50 | Products suitable for use as glues or adhesives, put up for retail sale as glues or adhesives, not exceeding a net weight of 1 kg |

### 14.5 Environmental hazards

| | | |
|---|---|---|
| Environmentally hazardous and/or Marine Pollutant | Yes | Chronic Category 2: Toxic to aquatic life with long lasting effects. |

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of MARPROL 73/78 and IBC Code

Not applicable as never transported in bulk.

## SECTION 15 – Regulatory Information

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

| | |
|---|---|
| REACH EC1907/2006 Annex XIII, XIV, XVII | Nonylphenol is listed in XVII. All other substance(s) in this product are not listed / not subject to restrictions. |
| International Agency for Research on Cancer (IARC) | The substance(s) in this product are not listed / not subject to restrictions. |
| Australia Inventory of Industrial Chemicals (AIIC) | The substance(s) in this product are listed. |
| New Zealand Inventory (NZIoC) | The substance(s) in this product are listed. |

| | |
|---|---|
| Canada Domestic Substances List (DSL) / Non-Domestic Subsance List (NDSL) | The substance(s) in this product are listed. |
| United States Inventory (TSCA 8b) | The substance(s) in this product are listed. |
| California Proposition 65 | The substance(s) in this product are not listed / not subject to restrictions. |
| Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 112(r) of the Clean Air Act (CAA) | Nonylphenol is listed. All other substance(s) in this product are not listed / not subject to restrictions. |

### 15.2 Chemical Safety Assessment

Not yet done.

## SECTION 16 – Other Information

Full text of abbreviated H statements

**H301** Toxic if swallowed.

**H302** Harmful if swallowed.

**H311** Toxic in contact with skin.

**H314** Causes severe skin burns and eye damage.

**H315** Causes skin irritation.

**H317** May cause an allergic skin reaction

**H318** Causes serious eye damage.

**H319** Causes serious eye irritation.

**H331** Toxic if inhaled.

**H361** Suspected of damaging fertility or the unborn child.

**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.

**H412** Harmful to aquatic life with long lasting effects.

Alternative names used for consumer packaging

| CAS No. | Ingredient Name (IUPAC) | Name used on Consumer Packaging |
|---|---|---|
| 25068-38-6 | Reaction product: bisphenol-A-(epichlorhydrin) | epoxy resin |
| 72244-98-5 | Poly[oxy(methyl-1,2-ethanediyl)], .alpha.- hydro-.omega. hydroxy-, ether with 2,2- bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether | polymercaptan |
| 84852-15-3 | 4-nonylphenol, branched | nonyl phenol |
| 6864-37-5 | 2,2'-dimethyl-4,4'methylenebis(cyclohexylamine) | dimethyldicyane |
| 6674-22-2 | 1,8-diazobicyclo[5.4.0]undec-7-ene | amidine |
| 538-75-0 | dicyclohexylcarbodiimide | dicylimide |

Changes from previous version

| Date changed | Section | Changes |
|---|---|---|
| 2021.03.18 | | Initial issue |

Abbreviations used

| | |
|---|---|
| **ADN** | European Agreement concerning the International Carriage of Dangerous Goods on Inland Waterways |
| **ADR** | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| **CAS No.** | Chemical Abstract Services Number |
| **DNEL** | Derived no-effect level |
| **EC3** | Effective concentration required to produce a three-fold increase in the stimulation index |
| **EC No.** | European Community Number |
| **ECHA** | European Chemicals Agency |
| **EWC** | European Waste Code |
| **GLP** | Good Laboratory Practice |
| **HSNO** | Hazardous Substances and New Organisms Act |
| **IATA** | International Air Transport Association |
| **IBC** | International Bulk Container |
| **ICAO** | International Civil Aviation Authority |
| **IMDG** | International Maritime Dangerous Goods |
| **IMO** | International Maritime Organization |
| **LD50** | Lethal dose to 50% of test population |
| **LLNA** | Local lymph node assay |
| **LT** | Long term |
| **mg/kg bw** | miligrams per kilogram of body weight |
| **mg/kg dwt** | miligrams per kilogram dry weight |
| **NOAEL** | No observed adverse effect level |
| **OECD** | Organisation for Economic Co-operation and Development |
| **OEL** | Occupational Exposure Limit |
| **PBT** | Persistant, Bioaccumulative and Toxic |
| **PNEC** | Predicted no-effect concentration |
| **RID** | European Agreements Concerning the International Carriage of Dangerous Goods by Rail |
| **SCBA** | Self contained breathing apparatus |
| **ST** | Short term |
| **STOT-SE** | Specific target Organ Toxicity - Single Exposure |
| **UN** | United Nationas |
| **vPvB** | very Persistant and very Bioaccumulative |