

# Ramset ChemSet 801 Xtrem

ITW Australia Pty Ltd (Ramsetreid)

Chemwatch Hazard Alert Code: 2

Chemwatch: 4753-62

Version No: 8.1.1.1

Safety Data Sheet according to WHS and ADG requirements

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Initial Date: Not Available

S.GHS.AUS.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

|                               |                            |
|-------------------------------|----------------------------|
| Product name                  | Ramset ChemSet 801 Xtrem   |
| Synonyms                      | Product Code: C801C, C801J |
| Proper shipping name          | POLYESTER RESIN KIT        |
| Other means of identification | Not Available              |

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

|                          |  |
|--------------------------|--|
| Relevant identified uses | The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. Use according to manufacturer's directions. |
|--------------------------|--|

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

|                         |   |   |
|-------------------------|---|---|
| Registered company name | ITW Australia Pty Ltd (Ramsetreid)              | ITW New Zealand Pty Ltd (Ramset)                |
| Address                 | 1 Ramset Drive Chirside Park VIC 3116 Australia | 23-29 Poland Rd. Glenfield Auckland New Zealand |
| Telephone               | 1300 780 250                                    | +64 9 444 3510                                  |
| Fax                     | Not Available                                   | Not Available                                   |
| Website                 | www.ramsetreid.com.au                           | www.ramset.co.nz                                |
| Email                   | Not Available                                   | Not Available                                   |

### Emergency telephone number

|                                   |                      |                        |
|-----------------------------------|----------------------|------------------------|
| Association / Organisation        | Not Available        | Not Available          |
| Emergency telephone numbers       | 1800 039 008 (24hrs) | +800 2436 2255 (24hrs) |
| Other emergency telephone numbers | Not Available        | Not Available          |

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture


**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

### CHEMWATCH HAZARD RATINGS

|              | Min | Max |              |
|--------------|-----|-----|--------------|
| Flammability | 2   |     |              |
| Toxicity     | 0   |     | 0 = Minimum  |
| Body Contact | 2   |     | 1 = Low      |
| Reactivity   | 1   |     | 2 = Moderate |
| Chronic      | 2   |     | 3 = High     |
|              |     |     | 4 = Extreme  |

|                    |   |
|--------------------|---|
| Poisons Schedule   | Not Applicable  |
| Classification [1] | Flammable Liquid Category 3, Skin Sensitizer Category 1, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3   |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |

### Label elements

|                    |   |
|--------------------|---|
| GHS label elements |  |
| SIGNAL WORD        | <b>WARNING</b>  |

### Hazard statement(s)

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.                       |
| H317 | May cause an allergic skin reaction.               |
| H412 | Harmful to aquatic life with long lasting effects. |

### Supplementary statement(s)

Not Applicable

**CLP classification (additional)**

Not Applicable

**Precautionary statement(s) Prevention**

|             |  |
|-------------|--|
| <b>P210</b> | Keep away from heat/sparks/open flames/hot surfaces. - No smoking.         |
| <b>P233</b> | Keep container tightly closed.   |
| <b>P280</b> | Wear protective gloves/protective clothing/eye protection/face protection. |
| <b>P240</b> | Ground/bond container and receiving equipment.                             |

**Precautionary statement(s) Response**

|                  |   |
|------------------|---|
| <b>P363</b>      | Wash contaminated clothing before reuse.  |
| <b>P370+P378</b> | In case of fire: Use alcohol resistant foam or fine spray/water fog for extinction. |
| <b>P302+P352</b> | IF ON SKIN: Wash with plenty of soap and water.                                     |
| <b>P333+P313</b> | If skin irritation or rash occurs: Get medical advice/attention.                    |

**Precautionary statement(s) Storage**

|                  |  |
|------------------|--|
| <b>P403+P235</b> | Store in a well-ventilated place. Keep cool. |
|------------------|--|

**Precautionary statement(s) Disposal**

|             |   |
|-------------|---|
| <b>P501</b> | Dispose of contents/container in accordance with local regulations. |
|-------------|---|

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No        | %[weight] | Name                                       |
|---------------|-----------|--|
| Not Available | 1-10      | 1-ethenyl-3-methylbenzene [CAS 100-80-1]   |
| Not Available | 1-10      | 1-ethenyl-4-methylbenzene [CAS 622-97-9]   |
| 923-26-2      | 1-10      | <u>2-hydroxypropyl methacrylate</u>        |
| 94-36-0       | 1-5       | <u>dibenzoyl peroxide</u>                  |
| 5444-75-7     | 1-5       | <u>2-ethylhexylbenzoate</u>                |
|               | balance   | Ingredients determined not to be hazardous |

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

|                     |  |
|---------------------|--|
| <b>Eye Contact</b>  | If this product comes in contact with eyes:<br>Wash out immediately with water.<br>If irritation continues, seek medical attention.<br>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| <b>Skin Contact</b> | If skin contact occurs:<br>Immediately remove all contaminated clothing, including footwear.<br>Flush skin and hair with running water (and soap if available).<br>Seek medical attention in event of irritation.                    |
| <b>Inhalation</b>   | If fumes, aerosols or combustion products are inhaled remove from contaminated area.<br>Other measures are usually unnecessary.  |
| <b>Ingestion</b>    | Immediately give a glass of water.<br>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.  |

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

Treat symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

Water spray or fog.  
Foam.  
Dry chemical powder.  
BCF (where regulations permit).

**Special hazards arising from the substrate or mixture**

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

**Advice for firefighters**

|                              |   |
|------------------------------|---|
| <b>Fire Fighting</b>         | Alert Fire Brigade and tell them location and nature of hazard.<br>May be violently or explosively reactive.<br>Wear breathing apparatus plus protective gloves.<br>Prevent, by any means available, spillage from entering drains or water course.   |
| <b>Fire/Explosion Hazard</b> | Liquid and vapour are flammable.<br>Moderate fire hazard when exposed to heat or flame.<br>Vapour forms an explosive mixture with air.<br>Moderate explosion hazard when exposed to heat or flame.<br>Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) other pyrolysis products typical of burning organic |

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | Remove all ignition sources.<br>Clean up all spills immediately.<br>Avoid breathing vapours and contact with skin and eyes.<br>Control personal contact with the substance, by using protective equipment.   |
| <b>Major Spills</b> | Clear area of personnel and move upwind.<br>Alert Fire Brigade and tell them location and nature of hazard.<br>May be violently or explosively reactive.<br>Wear breathing apparatus plus protective gloves. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

|                          |   |
|--------------------------|---|
| <b>Safe handling</b>     | Most acrylic monomers have low viscosity therefore pouring, material transfer and processing of these materials do not necessitate heating. Viscous monomers may require heating to facilitate handling. To facilitate product transfer from original containers, product must be heated to no more than 60 deg. C. (140 F.), for not more than 24 hours.<br>Containers, even those that have been emptied, may contain explosive vapours.<br>Do NOT cut, drill, grind, weld or perform similar operations on or near containers.<br>Avoid all personal contact, including inhalation.<br>Wear protective clothing when risk of overexposure occurs.<br>Use in a well-ventilated area.<br>Prevent concentration in hollows and sumps. |
| <b>Other information</b> | Store in original containers in approved flammable liquid storage area.<br>Store away from incompatible materials in a cool, dry, well-ventilated area.<br><b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b><br>No smoking, naked lights, heat or ignition sources.  |

### Conditions for safe storage, including any incompatibilities

|                                |  |
|--------------------------------|--|
| <b>Suitable container</b>      | Packing as supplied by manufacturer.<br>Plastic containers may only be used if approved for flammable liquid.<br>Check that containers are clearly labelled and free from leaks.<br>For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.<br>For materials with a viscosity of at least 2680 cSt. (23 deg. C)<br>For manufactured product having a viscosity of at least 250 cSt.  |
| <b>Storage incompatibility</b> | Vinyl toluene (syn: methylstyrene)<br>polymerises explosively unless inhibited with, typically, 10-50 ppm tert-butylcatechol<br>reacts violently with strong oxidisers, strong acids, peroxides<br>is incompatible with aluminium chloride, ammonia, aliphatic amines, alkanolamides, caustics, metal salts<br>uninhibited monomer may block vents and confined spaces by forming a solid polymeric material<br><b>WARNING:</b><br>May decompose violently or explosively on contact with other substances.<br>This substance, or one of its components, is one of the relatively few compounds which are described as "endothermic" i.e. heat is absorbed into the compound, rather than released from it, during its formation.<br>The majority of endothermic compounds are thermodynamically unstable and may decompose explosively under various circumstances of initiation.<br>Many but not all endothermic compounds have been involved in decompositions, reactions and explosions and, in general, compounds with significantly positive values of standard heats of formation, may be considered suspect on stability grounds.<br>for multifunctional acrylates:<br>Avoid exposure to free radical initiators (peroxides, persulfates) , iron, rust, oxidisers, and strong acids and strong bases.<br>Avoid heat, flame, sunlight, X-rays or ultra-violet radiation.<br>Storage beyond expiration date, may initiate polymerisation. Polymerisation of large quantities may be violent (even explosive)<br>Avoid reaction with oxidising agents |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA


| Source                       | Ingredient         | Material name    | TWA     | STEL          | Peak          | Notes         |
|------------------------------|--------------------|------------------|---------|---------------|---------------|---------------|
| Australia Exposure Standards | dibenzoyl peroxide | Benzoyl peroxide | 5 mg/m3 | Not Available | Not Available | Not Available |

#### EMERGENCY LIMITS

| Ingredient         | Material name    | TEEL-1   | TEEL-2     | TEEL-3     |
|--------------------|------------------|----------|------------|------------|
| dibenzoyl peroxide | Benzoyl peroxide | 15 mg/m3 | 1200 mg/m3 | 7000 mg/m3 |

| Ingredient                                  | Original IDLH | Revised IDLH  |
|---|---------------|---------------|
| 1-ethenyl-3-methylbenzene<br>[CAS 100-80-1] | Not Available | Not Available |
| 1-ethenyl-4-methylbenzene<br>[CAS 622-97-9] | Not Available | Not Available |
| 2-hydroxypropyl methacrylate                | Not Available | Not Available |
| dibenzoyl peroxide                          | 7,000 mg/m3   | 1,500 mg/m3   |
| 2-ethylhexylbenzoate                        | Not Available | Not Available |

## Exposure controls

|  |   |  |   |  |   |  |  |
|--|---|--|---|--|---|--|--|
| <b>Appropriate engineering controls</b>  | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.   |  |   |  |   |  |  |
| <b>Personal protection</b>   |    |  |   |  |   |  |  |
| <b>Eye and face protection</b>   | Safety glasses with side shields.<br>Chemical goggles.<br>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.   |  |   |  |   |  |  |
| <b>Skin protection</b>   | See Hand protection below   |  |   |  |   |  |  |
| <b>Hands/feet protection</b>   | <p><b>NOTE:</b><br/>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.<br/>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.<br/>General warning: Do NOT use latex gloves! Use only recommended gloves - using the wrong gloves may increase the risk:</p> <table border="1"> <tr> <td> <p><b>Exposure condition</b><br/>Short time use; (few minutes less than 0.5 hour)<br/>Little physical stress</p> </td> <td> <p>Use of thin nitrile rubber gloves:<br/>Nitrile rubber (0.1 mm)<br/>Excellent tactility ("feel"), powder-free<br/>Disposable<br/>Inexpensive<br/>Give adequate protection to low molecular weigh acrylic monomers</p> </td> </tr> <tr> <td> <p><b>Exposure condition</b><br/>Medium time use;<br/>less than 4 hours<br/>Physical stress (opening drums, using tools, etc.)</p> </td> <td> <p>Use of medium thick nitrile rubber gloves<br/>Nitrile rubber, NRL (latex) free; &lt;0.45 mm<br/>Moderate tactility ("feel"), powder-free<br/>Disposable<br/>Moderate price<br/>Gives adequate protection for most acrylates up to 4 hours<br/>Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour</p> </td> </tr> <tr> <td> <p><b>Exposure condition</b><br/>Long time<br/>Cleaning operations</p> </td> <td> <p>Nitrile rubber, NRL (latex) free; &gt;0.56 mm<br/>low tactility ("feel"), powder free<br/>High price<br/>Gives adequate protection for most acrylates in combination with commonly used solvents up to 8 hours<br/>Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour<br/>Avoid use of ketones and acetates in wash-up solutions.</p> </td> </tr> </table> <p>Where none of this gloves ensure safe handling (for example in long term handling of acrylates containing high levels of acetates and/ or ketones, use laminated multilayer gloves.<br/>Guide to the Classification and Labelling of UV/EB Acrylates Third edition, 231 October 2007 - Cefic</p> | <p><b>Exposure condition</b><br/>Short time use; (few minutes less than 0.5 hour)<br/>Little physical stress</p> | <p>Use of thin nitrile rubber gloves:<br/>Nitrile rubber (0.1 mm)<br/>Excellent tactility ("feel"), powder-free<br/>Disposable<br/>Inexpensive<br/>Give adequate protection to low molecular weigh acrylic monomers</p> | <p><b>Exposure condition</b><br/>Medium time use;<br/>less than 4 hours<br/>Physical stress (opening drums, using tools, etc.)</p> | <p>Use of medium thick nitrile rubber gloves<br/>Nitrile rubber, NRL (latex) free; &lt;0.45 mm<br/>Moderate tactility ("feel"), powder-free<br/>Disposable<br/>Moderate price<br/>Gives adequate protection for most acrylates up to 4 hours<br/>Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour</p> | <p><b>Exposure condition</b><br/>Long time<br/>Cleaning operations</p> | <p>Nitrile rubber, NRL (latex) free; &gt;0.56 mm<br/>low tactility ("feel"), powder free<br/>High price<br/>Gives adequate protection for most acrylates in combination with commonly used solvents up to 8 hours<br/>Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour<br/>Avoid use of ketones and acetates in wash-up solutions.</p> |
| <p><b>Exposure condition</b><br/>Short time use; (few minutes less than 0.5 hour)<br/>Little physical stress</p>                   | <p>Use of thin nitrile rubber gloves:<br/>Nitrile rubber (0.1 mm)<br/>Excellent tactility ("feel"), powder-free<br/>Disposable<br/>Inexpensive<br/>Give adequate protection to low molecular weigh acrylic monomers</p>   |  |   |  |   |  |  |
| <p><b>Exposure condition</b><br/>Medium time use;<br/>less than 4 hours<br/>Physical stress (opening drums, using tools, etc.)</p> | <p>Use of medium thick nitrile rubber gloves<br/>Nitrile rubber, NRL (latex) free; &lt;0.45 mm<br/>Moderate tactility ("feel"), powder-free<br/>Disposable<br/>Moderate price<br/>Gives adequate protection for most acrylates up to 4 hours<br/>Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour</p>   |  |   |  |   |  |  |
| <p><b>Exposure condition</b><br/>Long time<br/>Cleaning operations</p>   | <p>Nitrile rubber, NRL (latex) free; &gt;0.56 mm<br/>low tactility ("feel"), powder free<br/>High price<br/>Gives adequate protection for most acrylates in combination with commonly used solvents up to 8 hours<br/>Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour<br/>Avoid use of ketones and acetates in wash-up solutions.</p>  |  |   |  |   |  |  |
| <b>Body protection</b>   | See Other protection below  |  |   |  |   |  |  |
| <b>Other protection</b>  | <p>Overalls.<br/>PVC Apron.<br/>PVC protective suit may be required if exposure severe.<br/>Eyewash unit.</p> <p>Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</p> <p>For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</p> <p>Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.</p>  |  |   |  |   |  |  |
| <b>Thermal hazards</b>   | Not Available   |  |   |  |   |  |  |

## Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.  
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator  |
|------------------------------------|----------------------|----------------------|-------------------------|
| up to 10 x ES                      | A-AUS P3             | -                    | A-PAPR-AUS / Class 1 P3 |
| up to 50 x ES                      | -                    | A-AUS / Class 1 P3   | -                       |
| up to 100 x ES                     | -                    | A-2 P3               | A-PAPR-2 P3 ^           |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                       |   |                                     |     |
|-----------------------|---|-------------------------------------|-----|
| <b>Appearance</b>     | Off-white paste with an aromatic odour; not miscible with water |                                     |     |
| <b>Physical state</b> | Free-flowing Paste  | <b>Relative density (Water = 1)</b> | 1.7 |

|  |               |   |                |
|--|---------------|---|----------------|
| Odour  | Not Available | Partition coefficient n-octanol / water | Not Available  |
| Odour threshold                              | Not Available | Auto-ignition temperature (°C)          | Not Available  |
| pH (as supplied)                             | Not Available | Decomposition temperature               | Not Available  |
| Melting point / freezing point (°C)          | Not Available | Viscosity (cSt)                         | Not Available  |
| Initial boiling point and boiling range (°C) | >165          | Molecular weight (g/mol)                | Not Applicable |
| Flash point (°C)                             | 53            | Taste                                   | Not Available  |
| Evaporation rate                             | Not Available | Explosive properties                    | Not Available  |
| Flammability                                 | Flammable.    | Oxidising properties                    | Not Available  |
| Upper Explosive Limit (%)                    | 5.2           | Surface Tension (dyn/cm or mN/m)        | Not Available  |
| Lower Explosive Limit (%)                    | 1.1           | Volatile Component (%vol)               | Not Available  |
| Vapour pressure (kPa)                        | Not Available | Gas group                               | Not Available  |
| Solubility in water (g/L)                    | Immiscible    | pH as a solution (1%)                   | Not Available  |
| Vapour density (Air = 1)                     | Not Available | VOC g/L                                 | Not Available  |

## SECTION 10 STABILITY AND REACTIVITY

|                                    |   |
|------------------------------------|---|
| Reactivity                         | See section 7   |
| Chemical stability                 | Stable under controlled storage conditions provided material contains adequate stabiliser / polymerisation inhibitor.<br>Bulk storages may have special storage requirements<br>WARNING: Gradual decomposition in strong, sealed containers may lead to a large pressure build-up and subsequent explosion. Rapid and violent polymerisation possible at temperatures above 32 deg c. |
| Possibility of hazardous reactions | See section 7   |
| Conditions to avoid                | See section 7   |
| Incompatible materials             | See section 7   |
| Hazardous decomposition products   | See section 5   |

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

|              |  |
|--------------|--|
| Inhaled      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.<br>No report of respiratory illness in humans as a result of exposure to multifunctional acrylates has been found.   |
| Ingestion    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.   |
| Skin Contact | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.<br>All multifunctional acrylates (MFA) produce skin disorders and sensitise the skin and inflammation. Vapours generated by the heat of milling may occur in sufficient concentration to produce inflammation.<br>Open cuts, abraded or irritated skin should not be exposed to this material  |
| Eye          | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).   |
| Chronic      | Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Based on experience with animal studies, there is a possibility that exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.<br>Prolonged or repeated skin contact with benzoyl peroxide may result in allergic skin reactions even at diluted concentrations. Ingestion results in abdominal pain, low body oxygen and severe depression. Chronic effects of exposure include allergic reactions characterised by redness, itching, oozing, crusting, and scaling of the skin and asthmatic wheezing. Although it does not exhibit complete carcinogenic or tumour-initiating activity, it has been associated with certain tumours of like papillomas and squamous cell carcinomas.<br>Secondary amines may react with nitrites to form potentially carcinogenic N-nitrosamines.<br>Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity.<br>There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. |

|                              |  |  |
|------------------------------|--|--|
| Ramset ChemSet 801 Xtrem     | TOXICITY   | IRRITATION   |
|                              | Not Available                                    | Not Available  |
| 2-hydroxypropyl methacrylate | TOXICITY   | IRRITATION   |
|                              | Oral (rat) LD50: 11,200 mg/kg <sup>[2]</sup>     | Nil reported *   |
| dibenzoyl peroxide           | TOXICITY   | IRRITATION   |
|                              | dermal (mammal) LD50: >1000 mg/kg <sup>[2]</sup> | (@ 50%)  |
|                              | Oral (rat) LD50: >950 mg/kg <sup>[1]</sup>       | Eye (rabbit): 500 mg/24h - mild<br>Skin effects (MAK): very weak |
| 2-ethylhexylbenzoate         | TOXICITY   | IRRITATION   |
|                              | Not Available                                    | Not Available  |

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

**Ramset ChemSet 801 Xtrem**

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.

No significant acute toxicological data identified in literature search.

The chemical structure of hydroxylated diphenylalkanes or bisphenols consists of two phenolic rings joined together through a bridging carbon. This class of endocrine disruptors that mimic oestrogens is widely used in industry, particularly in plastics

Bisphenol A (BPA) and some related compounds exhibit oestrogenic activity in human breast cancer cell line MCF-7, but there were remarkable differences in activity. Several derivatives of BPA exhibited significant thyroid hormonal activity towards rat pituitary cell line GH3, which releases growth hormone in a thyroid hormone-dependent manner. However, BPA and several other derivatives did not show such activity.

Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety (CH<sub>2</sub>=CHCOO or CH<sub>2</sub>=C(CH<sub>3</sub>)COO) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing.

This position has now been revised and acrylates and methacrylates are no longer *de facto* carcinogens.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage. As such, they require careful handling. In general, the low-molecular weight polyamines have been positive in the Ames assay (for genetic damage); however, this is probably due to their ability to chelate copper.

For alkyl polyamines:

The alkyl polyamines cluster consists of two terminal primary and at least one secondary amine groups and are derivatives of low molecular weight ethylenediamine, propylenediamine or hexanediamine. Toxicity depends on route of exposure. Cluster members have been shown to cause skin irritation or sensitisation, eye irritation and genetic defects, but have not been shown to cause cancer.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

Where no "official" classification for acrylates and methacrylates exists, there has been cautious attempts to create classifications in the absence of contrary evidence. For example

Monoalkyl or monoarylesters of acrylic acids should be classified as R36/37/38 and R51/53

Monoalkyl or monoaryl esters of methacrylic acid should be classified as R36/37/38

Triethylenetetramine is a severe irritant to skin and eyes and may induce skin sensitisation. Acute exposure to saturated vapour via inhalation was tolerated without impairment but exposure to aerosol may lead to reversible irritations of the mucous membranes in the airways. Studies done on experimental animals showed that it does not cause cancer or foetal developmental defects.

**2-HYDROXYPROPYL METHACRYLATE**

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

Where no "official" classification for acrylates and methacrylates exists, there has been cautious attempts to create classifications in the absence of contrary evidence. For example

Monoalkyl or monoarylesters of acrylic acids should be classified as R36/37/38 and R51/53

Monoalkyl or monoaryl esters of methacrylic acid should be classified as R36/37/38

Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety (CH<sub>2</sub>=CHCOO or CH<sub>2</sub>=C(CH<sub>3</sub>)COO) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing.

This position has now been revised and acrylates and methacrylates are no longer *de facto* carcinogens.

for CAS 963-26-2 2-hydroxypropyl methacrylate NOTE: Allergic contact dermatitis is reported following exposure of guinea pigs (mild) and humans (severe). for CAS 27813-02-1 1-hydroxypropyl methacrylate

**DIBENZOYL PEROXIDE**

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Benzoyl peroxide may cause double vision, breathing problems, excess saliva and tear formation, redness of the skin and changes in motor activity. It did not produce blood or biochemical adverse effects, gene mutation or evidence of cancer. Repeated oral administration may result in decreased weights of testes and the newborn.

The substance is classified by IARC as Group 3:  
**NOT** classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

**2-ETHYLHEXYLBENZOATE**

No significant acute toxicological data identified in literature search.

|  |                                 |
|--|---------------------------------|
| <b>Acute Toxicity</b>                    | <b>Carcinogenicity</b>          |
| <b>Skin Irritation/Corrosion</b>         | <b>Reproductivity</b>           |
| <b>Serious Eye Damage/Irritation</b>     | <b>STOT - Single Exposure</b>   |
| <b>Respiratory or Skin sensitisation</b> | <b>STOT - Repeated Exposure</b> |
| <b>Mutagenicity</b>                      | <b>Aspiration Hazard</b>        |

**Legend:** – Data available but does not fill the criteria for classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

| Ingredient                   | Endpoint  | Test Duration (hr) | Species                       | Value       | Source |
|------------------------------|---|--------------------|-------------------------------|-------------|--------|
| 2-hydroxypropyl methacrylate | LC50  | 96                 | Fish                          | 157.065mg/L | 3      |
| 2-hydroxypropyl methacrylate | EC50  | 48                 | Crustacea                     | >143mg/L    | 2      |
| 2-hydroxypropyl methacrylate | NOEC  | 504                | Crustacea                     | 45.2mg/L    | 2      |
| 2-hydroxypropyl methacrylate | EC50  | Not Applicable     | Algae or other aquatic plants | 110mg/L     | 2      |
| 2-hydroxypropyl methacrylate | EC50  | 72                 | Algae or other aquatic plants | >97.2mg/L   | 2      |
| dibenzoyl peroxide           | LC50  | 96                 | Fish                          | 0.0602mg/L  | 2      |
| dibenzoyl peroxide           | EC50  | 48                 | Crustacea                     | 0.11mg/L    | 2      |
| dibenzoyl peroxide           | EC50  | 72                 | Algae or other aquatic plants | 0.0422mg/L  | 2      |
| dibenzoyl peroxide           | EC50  | 72                 | Algae or other aquatic plants | 0.0613mg/L  | 2      |
| dibenzoyl peroxide           | NOEC  | 72                 | Algae or other aquatic plants | 0.02mg/L    | 2      |
| 2-ethylhexylbenzoate         | EC50  | 96                 | Algae or other aquatic plants | 0.062mg/L   | 3      |
| 2-ethylhexylbenzoate         | LC50  | 96                 | Fish                          | >0.66mg/L   | 2      |
| 2-ethylhexylbenzoate         | EC50  | 48                 | Crustacea                     | >0.125mg/L  | 2      |
| 2-ethylhexylbenzoate         | EC50  | 96                 | Algae or other aquatic plants | >0.035mg/L  | 2      |
| 2-ethylhexylbenzoate         | NOEC  | 96                 | Algae or other aquatic plants | >=0.035mg/L | 2      |
| <b>Legend:</b>               | <i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</i> |                    |                               |             |        |

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For styrene:

Transport: Styrene is expected to volatilise from surface waters, and is also removed from waters by adsorption onto soils and sediments. Under certain conditions, styrene may leach through soil (particularly sandy soils) and enter ground water.

Transformation/Persistence: Air - In the atmosphere, styrene reacts with both hydroxyl radicals and ozone with estimated half-lives of 3.5 and 9 hours, respectively. The chemical is also degraded in the presence of NOX and natural sunlight.

Substances containing unsaturated carbons are ubiquitous in indoor environments. They result from many sources (see below). Most are reactive with environmental ozone and many produce stable products which are thought to adversely affect human health. The potential for surfaces in an enclosed space to facilitate reactions should be considered.

|                                  |   |   |
|----------------------------------|---|---|
| Source of unsaturated substances | Unsaturated substances (Reactive Emissions) | Major Stable Products produced following reaction with ozone. |
|----------------------------------|---|---|

For Acrylates

Ecotoxicity - Compounds with a log Pow >5 cause drowsiness or stupor, but at lower log Pow the toxicity of acrylates is greater than predicted for simple narcotics.

Atmospheric Fate: Volatilized acrylic acid and acrylic esters are predicted to degrade rapidly by atmospheric photo-oxidation with estimated half-lives of 2 to 24 h.

Terrestrial Fate: Acrylic acid biodegrades aerobically in soil. The mobility in soil of acrylic acid and its esters ranged from 'medium' to 'very high'.

For alkyl polyamines:

All members of this cluster are miscible or soluble in water.

Environmental Fate: Members of this cluster are expected to have varying degrees of mobility in the soil. While models suggest that they are likely to react rapidly with photochemically produced hydroxyl radicals (with half-lives of an hour), as they do not readily exist in vapour form this is not expected to be a predominant removal pathway for these chemicals. Experimental data and results from estimation models indicate that all members of this cluster have the potential to biodegrade aerobically under environmental conditions.

**DO NOT discharge into sewer or waterways.**

### Persistence and degradability

| Ingredient                   | Persistence: Water/Soil   | Persistence: Air             |
|------------------------------|---------------------------|------------------------------|
| 2-hydroxypropyl methacrylate | LOW                       | LOW                          |
| dibenzoyl peroxide           | LOW (Half-life = 14 days) | LOW (Half-life = 21.25 days) |
| 2-ethylhexylbenzoate         | LOW                       | LOW                          |

### Bioaccumulative potential

| Ingredient                   | Bioaccumulation        |
|------------------------------|------------------------|
| 2-hydroxypropyl methacrylate | LOW (BCF = 3.2)        |
| dibenzoyl peroxide           | LOW (LogKOW = 3.46)    |
| 2-ethylhexylbenzoate         | HIGH (LogKOW = 5.1924) |

### Mobility in soil

| Ingredient                   | Mobility         |
|------------------------------|------------------|
| 2-hydroxypropyl methacrylate | LOW (KOC = 10)   |
| dibenzoyl peroxide           | LOW (KOC = 771)  |
| 2-ethylhexylbenzoate         | LOW (KOC = 5178) |

## SECTION 13 DISPOSAL CONSIDERATIONS

### Waste treatment methods

|                                     |   |
|-------------------------------------|---|
| <b>Product / Packaging disposal</b> | <p>Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible.</p> <p>Otherwise:</p> <p>If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</p> <p>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</p> <p><b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></p> <p>It may be necessary to collect all wash water for treatment before disposal.</p> <p>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</p> <p>Where in doubt contact the responsible authority.</p> <p>Recycle wherever possible.</p> <p>Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</p> <p>Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material).</p> <p>Decontaminate empty containers.</p> |
|-------------------------------------|---|

## SECTION 14 TRANSPORT INFORMATION

### Labels Required

|                         |   |
|-------------------------|---|
|                         |  |
| <b>Marine Pollutant</b> | NO  |
| <b>HAZCHEM</b>          | •2YE  |

### Land transport (ADG)

|                                     |   |                    |     |                  |                |
|-------------------------------------|---|--------------------|-----|------------------|----------------|
| <b>UN number</b>                    | 3269  |                    |     |                  |                |
| <b>UN proper shipping name</b>      | POLYESTER RESIN KIT   |                    |     |                  |                |
| <b>Transport hazard class(es)</b>   | <table border="0"> <tr> <td>Class</td> <td>3</td> </tr> <tr> <td>Subrisk</td> <td>Not Applicable</td> </tr> </table>              | Class              | 3   | Subrisk          | Not Applicable |
| Class                               | 3   |                    |     |                  |                |
| Subrisk                             | Not Applicable  |                    |     |                  |                |
| <b>Packing group</b>                | III   |                    |     |                  |                |
| <b>Environmental hazard</b>         | Not Applicable  |                    |     |                  |                |
| <b>Special precautions for user</b> | <table border="0"> <tr> <td>Special provisions</td> <td>236</td> </tr> <tr> <td>Limited quantity</td> <td>5 L</td> </tr> </table> | Special provisions | 236 | Limited quantity | 5 L            |
| Special provisions                  | 236   |                    |     |                  |                |
| Limited quantity                    | 5 L   |                    |     |                  |                |

### Air transport (ICAO-IATA / DGR)

|   |  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
|---|--|--------------------|---------|---------------------------------|----------------|-------------------------------|------|--|-----|--|------|---|------|--|------|
| <b>UN number</b>  | 3269   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| <b>UN proper shipping name</b>                            | Polyester resin kit  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| <b>Transport hazard class(es)</b>                         | <table border="0"> <tr> <td>ICAO/IATA Class</td> <td>3</td> </tr> <tr> <td>ICAO / IATA Subrisk</td> <td>Not Applicable</td> </tr> <tr> <td>ERG Code</td> <td>3L</td> </tr> </table>  | ICAO/IATA Class    | 3       | ICAO / IATA Subrisk             | Not Applicable | ERG Code                      | 3L   |  |     |  |      |   |      |  |      |
| ICAO/IATA Class   | 3  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| ICAO / IATA Subrisk                                       | Not Applicable   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| ERG Code  | 3L   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| <b>Packing group</b>                                      | III  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| <b>Environmental hazard</b>                               | Not Applicable   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| <b>Special precautions for user</b>                       | <table border="0"> <tr> <td>Special provisions</td> <td>A66A163</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>370</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>5 kg</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>370</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>5 kg</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Y370</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>1 kg</td> </tr> </table> | Special provisions | A66A163 | Cargo Only Packing Instructions | 370            | Cargo Only Maximum Qty / Pack | 5 kg | Passenger and Cargo Packing Instructions | 370 | Passenger and Cargo Maximum Qty / Pack | 5 kg | Passenger and Cargo Limited Quantity Packing Instructions | Y370 | Passenger and Cargo Limited Maximum Qty / Pack | 1 kg |
| Special provisions  | A66A163  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| Cargo Only Packing Instructions                           | 370  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| Cargo Only Maximum Qty / Pack                             | 5 kg   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| Passenger and Cargo Packing Instructions                  | 370  |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| Passenger and Cargo Maximum Qty / Pack                    | 5 kg   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| Passenger and Cargo Limited Quantity Packing Instructions | Y370   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |
| Passenger and Cargo Limited Maximum Qty / Pack            | 1 kg   |                    |         |                                 |                |                               |      |  |     |  |      |   |      |  |      |

### Sea transport (IMDG-Code / GGVSee)

|                                     |  |            |          |                    |                |                    |     |
|-------------------------------------|--|------------|----------|--------------------|----------------|--------------------|-----|
| <b>UN number</b>                    | 3269   |            |          |                    |                |                    |     |
| <b>UN proper shipping name</b>      | POLYESTER RESIN KIT  |            |          |                    |                |                    |     |
| <b>Transport hazard class(es)</b>   | <table border="0"> <tr> <td>IMDG Class</td> <td>3</td> </tr> <tr> <td>IMDG Subrisk</td> <td>Not Applicable</td> </tr> </table>   | IMDG Class | 3        | IMDG Subrisk       | Not Applicable |                    |     |
| IMDG Class                          | 3  |            |          |                    |                |                    |     |
| IMDG Subrisk                        | Not Applicable   |            |          |                    |                |                    |     |
| <b>Packing group</b>                | III  |            |          |                    |                |                    |     |
| <b>Environmental hazard</b>         | Not Applicable   |            |          |                    |                |                    |     |
| <b>Special precautions for user</b> | <table border="0"> <tr> <td>EMS Number</td> <td>F-E, S-D</td> </tr> <tr> <td>Special provisions</td> <td>236 340</td> </tr> <tr> <td>Limited Quantities</td> <td>5 L</td> </tr> </table> | EMS Number | F-E, S-D | Special provisions | 236 340        | Limited Quantities | 5 L |
| EMS Number                          | F-E, S-D   |            |          |                    |                |                    |     |
| Special provisions                  | 236 340  |            |          |                    |                |                    |     |
| Limited Quantities                  | 5 L  |            |          |                    |                |                    |     |



## Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## SECTION 15 REGULATORY INFORMATION

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

#### 2-HYDROXYPROPYL METHACRYLATE(923-26-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

#### DIBENZOYL PEROXIDE(94-36-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Australia Hazardous Substances Information System - Consolidated Lists

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

Australia Inventory of Chemical Substances (AICS)

#### 2-ETHYLHEXYLBENZOATE(5444-75-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

| National Inventory            | Status   |
|-------------------------------|--|
| Australia - AICS              | N (2-ethylhexylbenzoate)   |
| Canada - DSL                  | Y  |
| Canada - NDSL                 | N (dibenzoyl peroxide; 2-hydroxypropyl methacrylate; 2-ethylhexylbenzoate)   |
| China - IECSC                 | Y  |
| Europe - EINEC / ELINCS / NLP | Y  |
| Japan - ENCS                  | Y  |
| Korea - KECI                  | Y  |
| New Zealand - NZIoC           | Y  |
| Philippines - PICCS           | N (2-ethylhexylbenzoate)   |
| USA - TSCA                    | Y  |
| <b>Legend:</b>                | Y = All ingredients are on the inventory<br>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

## SECTION 16 OTHER INFORMATION

### Other information

#### Ingredients with multiple cas numbers

| Name                         | CAS No  |
|------------------------------|---|
| 2-hydroxypropyl methacrylate | 122413-04-1, 124742-02-5, 138258-23-8, 191411-56-0, 204013-27-4, 27072-46-4, 27813-02-1, 30348-68-6, 32073-20-4, 50851-93-9, 50975-16-1, 51424-40-9, 51480-40-1, 63625-57-0, 923-26-2, 99609-88-8 |

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net](http://www.chemwatch.net)

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

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