

# Epirez Supatuff Food Grade Finish [FG] Hardener

## ITW POLYMERS & FLUIDS

Chemwatch: 5137-45

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Issue Date: 10/03/2023

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Initial Date: 11/07/2006

S.GHS.AUS.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

#### Product Identifier

|                               |  |
|-------------------------------|--|
| Product name                  | Epirez Supatuff Food Grade Finish [FG] Hardener        |
| Chemical Name                 | Not Applicable   |
| Synonyms                      | hardener; curing agent; catalyst                       |
| Proper shipping name          | CORROSIVE LIQUID, N.O.S. (contains isophorone diamine) |
| Chemical formula              | Not Applicable   |
| Other means of identification | Not Available  |

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

|                          |   |
|--------------------------|---|
| Relevant identified uses | <p>Hardener component of a two-part epoxy high build coating.<br/>Use according to manufacturer's directions.<br/>Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. <b>Do not</b> return the mixed material to the original containers<br/>The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing.</p> |
|--------------------------|---|

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

|                         |   |
|-------------------------|---|
| Registered company name | ITW POLYMERS & FLUIDS   |
| Address                 | 100 Hassall Street, Wetherill Park Not Available 2164 NSW Australia |
| Telephone               | +61 2 9757 8800   |
| Fax                     | Not Available   |
| Website                 | www.itwpf.com.au  |
| Email                   | Not Available   |

#### Emergency telephone number

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| Association / Organisation        | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone numbers       | +61 1800 951 288                    |
| Other emergency telephone numbers | +61 3 9573 3188                     |

#### CHEMWATCH EMERGENCY RESPONSE

| Primary Number   | Alternative Number 1 | Alternative Number 2 |
|------------------|----------------------|----------------------|
| +61 1800 951 288 | +61 3 9573 3188      | Not Available        |

Once connected and if the message is not in your preferred language then please dial 01

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

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

|                  |    |
|------------------|----|
| Poisons Schedule | S5 |
|------------------|----|

**Epirez Supatuff Food Grade Finish [FG] Hardener**

|                                      |  |
|--------------------------------------|--|
| <b>Classification</b> <sup>[1]</sup> | Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1A, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 1, Sensitisation (Respiratory) Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 3 |
| <b>Legend:</b>                       | 1. Classified by Chemwatch; 2. Classification drawn from HCIS ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI   |

**Label elements**

|                            |               |
|----------------------------|---------------|
| <b>Hazard pictogram(s)</b> |               |
| <b>Signal word</b>         | <b>Danger</b> |

**Hazard statement(s)**

|             |  |
|-------------|--|
| <b>H302</b> | Harmful if swallowed.  |
| <b>H314</b> | Causes severe skin burns and eye damage.                                   |
| <b>H317</b> | May cause an allergic skin reaction.                                       |
| <b>H334</b> | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| <b>H412</b> | Harmful to aquatic life with long lasting effects.                         |

**Precautionary statement(s) Prevention**

|             |  |
|-------------|--|
| <b>P260</b> | Do not breathe mist/vapours/spray.   |
| <b>P264</b> | Wash all exposed external body areas thoroughly after handling.                  |
| <b>P280</b> | Wear protective gloves, protective clothing, eye protection and face protection. |
| <b>P284</b> | [In case of inadequate ventilation] wear respiratory protection.                 |

**Precautionary statement(s) Response**

|                       |  |
|-----------------------|--|
| <b>P301+P330+P331</b> | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.   |
| <b>P303+P361+P353</b> | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |
| <b>P304+P340</b>      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| <b>P305+P351+P338</b> | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

**Precautionary statement(s) Storage**

|             |                  |
|-------------|------------------|
| <b>P405</b> | Store locked up. |
|-------------|------------------|

**Precautionary statement(s) Disposal**

|             |  |
|-------------|--|
| <b>P501</b> | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|-------------|--|

**SECTION 3 Composition / information on ingredients**

**Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No    | %[weight] | Name                      |
|-----------|-----------|---------------------------|
| 2855-13-2 | 10-30     | <u>isophorone diamine</u> |
|           | 30-60     | aromatic alcohol          |
| 1477-55-0 | <10       | <u>m-xylenediamine</u>    |
|           | 10-30     | modified amino resin      |

**SECTION 4 First aid measures**

**Description of first aid measures**

## Epirez Supatuff Food Grade Finish [FG] Hardener

| General      |  |
|--------------|--|
| Eye Contact  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>   |
| Skin Contact | <p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately flush body and clothes with large amounts of water, using safety shower if available.</li> <li>▶ Quickly remove all contaminated clothing, including footwear.</li> <li>▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.</li> <li>▶ Transport to hospital, or doctor.</li> </ul>   |
| Inhalation   | <ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>   |
| Ingestion    | <ul style="list-style-type: none"> <li>▶ For advice, contact a Poisons Information Centre or a doctor at once.</li> <li>▶ Urgent hospital treatment is likely to be needed.</li> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Transport to hospital or doctor without delay.</li> </ul> |

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

For acute or short-term repeated exposures to highly alkaline materials:

- ▶ Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- ▶ Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- ▶ Oxygen is given as indicated.
- ▶ The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- ▶ Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

## INGESTION:

- ▶ Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

Neutralising agents should never be given since exothermic heat reaction may compound injury.

\* Catharsis and emesis are absolutely contra-indicated.

\* Activated charcoal does not absorb alkali.

\* Gastric lavage should not be used.

Supportive care involves the following:

- ▶ Withhold oral feedings initially.
- ▶ If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- ▶ Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- ▶ Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

## SKIN AND EYE:

- ▶ Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

Clinical experience of benzyl alcohol poisoning is generally confined to premature neonates in receipt of preserved intravenous salines.

- ▶ Metabolic acidosis, bradycardia, skin breakdown, hypotonia, hepatorenal failure, hypotension and cardiovascular collapse are characteristic.
- ▶ High urine benzoate and hippuric acid as well as elevated serum benzoic acid levels are found.
- ▶ The so-called "gasping syndrome" describes the progressive neurological deterioration of poisoned neonates.
- ▶ Management is essentially supportive.

## SECTION 5 Firefighting measures

## Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).

Continued...

## Epirez Supatuff Food Grade Finish [FG] Hardener

|  |                   |
|--|-------------------|
|  | ▶ Carbon dioxide. |
|--|-------------------|

### 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> | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Use fire fighting procedures suitable for surrounding area.</li> </ul> |
|----------------------|---|

|                              |  |
|------------------------------|--|
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>carbon dioxide (CO<sub>2</sub>)<br/>aldehydes<br/>nitrogen oxides (NO<sub>x</sub>)<br/>other pyrolysis products typical of burning organic material.<br/>May emit corrosive fumes.</p> |
|------------------------------|--|

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

|                     |   |
|---------------------|---|
| <b>Minor Spills</b> | <p>Slippery when spilt.</p> <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> </ul> |
|---------------------|---|

|                     |  |
|---------------------|--|
| <b>Major Spills</b> | <p>Slippery when spilt.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul> |
|---------------------|--|

|  |  |
|--|--|
|  | 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> | <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> <p><b>Contains low boiling substance:</b><br/>Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.</p> <ul style="list-style-type: none"> <li>▶ Check for bulging containers.</li> <li>▶ Vent periodically</li> <li>▶ Always release caps or seals slowly to ensure slow dissipation of vapours</li> <li>▶ <b>DO NOT USE brass or copper containers / stirrers</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ <b>WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.</b></li> </ul> |
|----------------------|--|

|                          |   |
|--------------------------|---|
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ <b>DO NOT store near acids, or oxidising agents</b></li> </ul> <p>Protect containers against physical damage</p> <ul style="list-style-type: none"> <li>▶ Check regularly for spills and leaks</li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> </ul> |
|--------------------------|---|

### Conditions for safe storage, including any incompatibilities

|                           |  |
|---------------------------|--|
| <b>Suitable container</b> | <ul style="list-style-type: none"> <li>▶ Lined metal can, lined metal pail/ can.</li> <li>▶ Plastic pail.</li> </ul> |
|---------------------------|--|

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|                                |  |
|--------------------------------|--|
|                                | <ul style="list-style-type: none"> <li>▸ Polyliner drum.</li> <li>▸ Packing as recommended by manufacturer.</li> </ul> <p>For low viscosity materials</p> <ul style="list-style-type: none"> <li>▸ Drums and jerricans must be of the non-removable head type.</li> <li>▸ Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> </ul> <p>For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.):</p> <ul style="list-style-type: none"> <li>▸ Removable head packaging;</li> <li>▸ Cans with friction closures and</li> <li>▸ low pressure tubes and cartridges</li> </ul> <p>may be used.</p> |
| <b>Storage incompatibility</b> | <ul style="list-style-type: none"> <li>▸ Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.</li> <li>▸ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.</li> <li>▸ Avoid reaction with oxidising agents</li> </ul>  |

## 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 | m-xylenediamine | m-Xylene-alpha,alpha'-diamine | Not Available | Not Available | 0.1 mg/m3 | Not Available |

## Emergency Limits

| Ingredient                                      | Material name | TEEL-1        | TEEL-2        | TEEL-3        |
|---|---------------|---------------|---------------|---------------|
| Epirez Supatuff Food Grade Finish [FG] Hardener | Not Available | Not Available | Not Available | Not Available |

| Ingredient         | Original IDLH | Revised IDLH  |
|--------------------|---------------|---------------|
| isophorone diamine | Not Available | Not Available |
| m-xylenediamine    | Not Available | Not Available |

## Exposure controls

|  |  |
|--|--|
| <b>Appropriate engineering controls</b>                                      | <p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p>   |
| <b>Individual protection measures, such as personal protective equipment</b> |   |
| <b>Eye and face protection</b>   | <ul style="list-style-type: none"> <li>▸ Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.</li> <li>▸ Chemical goggles whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.</li> <li>▸ Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.</li> <li>▸ Alternatively a gas mask may replace splash goggles and face shields.</li> </ul> |
| <b>Skin protection</b>   | See Hand protection below  |
| <b>Hands/feet protection</b>   | <ul style="list-style-type: none"> <li>▸ Elbow length PVC gloves</li> <li>▸ When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▸ 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.</li> <li>▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul>  |
| <b>Body protection</b>   | See Other protection below   |

|                         |   |
|-------------------------|---|
| <b>Other protection</b> | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ PVC Apron.</li> <li>▶ PVC protective suit may be required if exposure severe.</li> <li>▶ Eyewash unit.</li> </ul> |
| <b>Thermal hazards</b>  | Not Available   |

## Respiratory protection

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

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

|   |  |  |               |
|---|--|--|---------------|
| <b>Appearance</b>                                   | Pale yellow liquid with a characteristic odour; does not mix with water. |  |               |
| <b>Physical state</b>                               | Liquid   | <b>Relative density (Water = 1)</b>            | 1.07          |
| <b>Odour</b>  | Not Available  | <b>Partition coefficient n-octanol / water</b> | Not Available |
| <b>Odour threshold</b>                              | Not Available  | <b>Auto-ignition temperature (°C)</b>          | Not Available |
| <b>pH (as supplied)</b>                             | Not Available  | <b>Decomposition temperature (°C)</b>          | Not Available |
| <b>Melting point / freezing point (°C)</b>          | Not Available  | <b>Viscosity (cSt)</b>                         | Not Available |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available  | <b>Molecular weight (g/mol)</b>                | Not Available |
| <b>Flash point (°C)</b>                             | >100 (PMCC)  | <b>Taste</b>                                   | Not Available |
| <b>Evaporation rate</b>                             | Not Available  | <b>Explosive properties</b>                    | Not Available |
| <b>Flammability</b>                                 | Not Applicable   | <b>Oxidising properties</b>                    | Not Available |
| <b>Upper Explosive Limit (%)</b>                    | Not Available  | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available |
| <b>Lower Explosive Limit (%)</b>                    | Not Available  | <b>Volatile Component (%vol)</b>               | Not Available |
| <b>Vapour pressure (kPa)</b>                        | Not Available  | <b>Gas group</b>                               | Not Available |
| <b>Solubility in water</b>                          | Immiscible   | <b>pH as a solution (1%)</b>                   | Not Available |
| <b>Vapour density (Air = 1)</b>                     | Not Available  | <b>VOC g/L</b>                                 | Not Available |

## SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

## SECTION 11 Toxicological information

### Information on toxicological effects

|                |  |
|----------------|--|
| <b>Inhaled</b> | <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.</p> <p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane.</p> <p>The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating</p> |
|----------------|--|

### Epirez Supatuff Food Grade Finish [FG] Hardener

|                     |   |
|---------------------|---|
|                     | <p>atmosphere developing. Before starting consider control of exposure by mechanical ventilation.</p> <p>Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals showing "amine asthma".</p>  |
| <b>Ingestion</b>    | <p>Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhoea may follow.</p> <p>Amines without benzene rings when swallowed are absorbed throughout the gut. Corrosive action may cause damage throughout the gastrointestinal tract.</p> <p>Ingestion of amine epoxy-curing agents (hardeners) may cause severe abdominal pain, nausea, vomiting or diarrhoea. The vomitus may contain blood and mucous.</p>  |
| <b>Skin Contact</b> | <p>Skin contact with the material may be harmful; systemic effects may result following absorption.</p> <p>The material can produce severe chemical burns following direct contact with the skin.</p> <p>Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep.</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.</p> <p>Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p> <p>Amine epoxy-curing agents (hardeners) may produce primary skin irritation and sensitisation dermatitis in predisposed individuals. Cutaneous reactions include erythema, intolerable itching and severe facial swelling.</p> <p>Volatile amine vapours produce irritation and inflammation of the skin. Direct contact can cause burns.</p> <p>The material may cause severe 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. Repeated exposures may produce severe ulceration.</p>  |
| <b>Eye</b>          | <p>If applied to the eyes, this material causes severe eye damage.</p> <p>Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.</p> <p>Vapours of volatile amines irritate the eyes, causing excessive secretion of tears, inflammation of the conjunctiva and slight swelling of the cornea, resulting in "halos" around lights. This effect is temporary, lasting only for a few hours. However this condition can reduce the efficiency of undertaking skilled tasks, such as driving a car. Direct eye contact with liquid volatile amines may produce eye damage, permanent for the lighter species.</p> <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p>  |
| <b>Chronic</b>      | <p>Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity.</p> <p>Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals showing "amine asthma".</p> |

|  |                 |                   |
|--|-----------------|-------------------|
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | <b>TOXICITY</b> | <b>IRRITATION</b> |
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | <b>TOXICITY</b> | <b>IRRITATION</b> |
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | <b>TOXICITY</b> | <b>IRRITATION</b> |

**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

|   |   |
|---|---|
| <b>Epirez Supatuff Food Grade Finish [FG]</b> | Isophorone diamine is a strong skin irritant, corrosive with repeated application. Frequent occupational exposure may lead to |
|---|---|

Continued...

## Epirez Supatuff Food Grade Finish [FG] Hardener

|  |   |
|--|---|
| <b>Hardener</b>  | <p>the development of allergic skin inflammation. There could be damage to the smell organ, throat and lungs following inhalational exposure. Reduced kidney weight can result.</p> <p>The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. 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.</p>   |
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | <p>Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Allergy causing activity is due to interactions with proteins.</p> <p>Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema.</p> <p>Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.</p> <p>For benzene-1,3-dimethanamine (m-xylene-alpha,alpha -diamine):</p> <p>Animal testing showed that benzene-1,3-methanamine caused tissue damage to the digestive and respiratory organs, if given by mouth or inhaled, respectively. The chemical is corrosive to animal skin, and may cause sensitization. Testing has not shown any reproductive toxicity or ability to cause mutations. In humans, it appears to act as a gastrointestinal irritant, and has been shown to cause contact sensitization, even at low concentrations.</p> <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may cause severe 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. Repeated exposures may produce severe ulceration.</p> <p>Overexposure to most of these materials may cause adverse health effects.</p> <p>Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient.</p> <p>There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing.</p> <p>Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage.</p> |
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | <p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>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.</p> <p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.</p>   |

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <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 to make classification  
✗ – Data available but does not fill the criteria for classification  
⊖ – Data Not Available to make classification

## SECTION 12 Ecological information

## Toxicity

Not Available

| Ingredient | Endpoint | Test Duration (hr) | Effect | Value | Species | BCF |
|------------|----------|--------------------|--------|-------|---------|-----|
|------------|----------|--------------------|--------|-------|---------|-----|

Continued...

**Epirez Supatuff Food Grade Finish [FG] Hardener**

|  |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | Not Available |
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | Not Available |
| <b>Epirez Supatuff Food Grade Finish [FG] Hardener</b> | Not Available |

Prevent, by any means available, spillage from entering drains or water courses.  
**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

| Ingredient         | Persistence: Water/Soil | Persistence: Air |
|--------------------|-------------------------|------------------|
| isophorone diamine | HIGH                    | HIGH             |
| m-xylenediamine    | HIGH                    | HIGH             |

**Bioaccumulative potential**

| Ingredient         | Bioaccumulation |
|--------------------|-----------------|
| isophorone diamine | LOW (BCF = 3.4) |
| m-xylenediamine    | LOW (BCF = 2.7) |

**Mobility in soil**

| Ingredient         | Mobility          |
|--------------------|-------------------|
| isophorone diamine | LOW (KOC = 340.4) |
| m-xylenediamine    | LOW (KOC = 914.6) |

**SECTION 13 Disposal considerations**

**Waste treatment methods**

|                                     |  |
|-------------------------------------|--|
| <b>Product / Packaging disposal</b> | <ul style="list-style-type: none"> <li>▶ Recycle wherever possible.</li> <li>▶ 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.</li> <li>▶ Treat and neutralise at an approved treatment plant.</li> <li>▶ Treatment should involve: Neutralisation with suitable dilute acid followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ 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.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul> |
|-------------------------------------|--|

**SECTION 14 Transport information**

**Labels Required**

|                         |   |
|-------------------------|---|
|                         |  |
| <b>Marine Pollutant</b> | NO<br>Not Applicable  |
| <b>HAZCHEM</b>          | 2X  |

**Land transport (Not Applicable)**

|                      |      |
|----------------------|------|
| <b>UN number</b>     | 1760 |
| <b>Packing group</b> | II   |

|                                     |  |                |
|-------------------------------------|--|----------------|
| <b>UN proper shipping name</b>      | CORROSIVE LIQUID, N.O.S. (contains isophorone diamine) |                |
| <b>Environmental hazard</b>         | No relevant data                                       |                |
| <b>Transport hazard class(es)</b>   | Class  | 8              |
|                                     | Subsidiary risk  | Not Applicable |
| <b>Special precautions for user</b> | Special provisions                                     | 274            |
|                                     | Limited quantity                                       | 1 L            |

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

|                                     |   |                |
|-------------------------------------|---|----------------|
| <b>UN number</b>                    | 1760  |                |
| <b>Packing group</b>                | II  |                |
| <b>UN proper shipping name</b>      | Corrosive liquid, n.o.s. * (contains isophorone diamine)  |                |
| <b>Environmental hazard</b>         | No relevant data  |                |
| <b>Transport hazard class(es)</b>   | ICAO/IATA Class   | 8              |
|                                     | ICAO / IATA Subrisk                                       | Not Applicable |
|                                     | ERG Code  | 8L             |
| <b>Special precautions for user</b> | Special provisions  | A3 A803        |
|                                     | Cargo Only Packing Instructions                           | 855            |
|                                     | Cargo Only Maximum Qty / Pack                             | 30 L           |
|                                     | Passenger and Cargo Packing Instructions                  | 851            |
|                                     | Passenger and Cargo Maximum Qty / Pack                    | 1 L            |
|                                     | Passenger and Cargo Limited Quantity Packing Instructions | Y840           |
|                                     | Passenger and Cargo Limited Maximum Qty / Pack            | 0.5 L          |

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

|                                     |  |                |
|-------------------------------------|--|----------------|
| <b>UN number</b>                    | 1760   |                |
| <b>Packing group</b>                | II   |                |
| <b>UN proper shipping name</b>      | CORROSIVE LIQUID, N.O.S. (contains isophorone diamine) |                |
| <b>Environmental hazard</b>         | Not Applicable   |                |
| <b>Transport hazard class(es)</b>   | IMDG Class   | 8              |
|                                     | IMDG Subrisk   | Not Applicable |
| <b>Special precautions for user</b> | EMS Number   | F-A, S-B       |
|                                     | Special provisions                                     | 274            |
|                                     | Limited Quantities                                     | 1 L            |

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

| Source        | Ingredient                                      | Pollution Category |
|---------------|---|--------------------|
| Not Available | Epirez Supatuff Food Grade Finish [FG] Hardener | Not Available      |

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture**

isophorone diamine(2855-13-2) is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

## Epirez Supatuff Food Grade Finish [FG] Hardener

m-xylenediamine(1477-55-0) is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

| National Inventory            | Status  |
|-------------------------------|---|
| Australia - AIIC              |   |
| Canada - DSL                  | Yes   |
| Canada - NDSL                 | No (m-xylenediamine)                            |
| China - IECSC                 | Yes   |
| Europe - EINEC / ELINCS / NLP | Yes   |
| Japan - ENCS                  | Yes   |
| Korea - KECI                  | Yes   |
| New Zealand - NZIoC           | Yes   |
| Philippines - PICCS           | Yes   |
| USA - TSCA                    | Yes   |
| <b>Legend:</b>                | <i>Y = All ingredients are on the inventory</i> |

## SECTION 16 Other information

### Other information

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.

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.

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