

# RESENE ARMOURZINC 120 HARDENER

## Resene Paints Ltd

Version No: 2.2  
Safety Data Sheet according to HSNO Regulations

Issue Date: 16/06/2020  
Print Date: 16/06/2020  
L.GHS.NZL.EN

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

### Product Identifier

|                               |  |
|-------------------------------|--|
| Product name                  | RESENE ARMOURZINC 120 HARDENER   |
| Synonyms                      | Not Available  |
| Proper shipping name          | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) |
| Other means of identification | Not Available  |

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

|                          |      |
|--------------------------|------|
| Relevant identified uses | 5100 |
|--------------------------|------|

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

|                         |   |
|-------------------------|---|
| Registered company name | Resene Paints Ltd                         |
| Address                 | 32-50 Vogel Street Wellington New Zealand |
| Telephone               | +64 4 577 0500                            |
| Fax                     | +64 4 5773327                             |
| Website                 | www.resene.co.nz                          |
| Email                   | advice@resene.co.nz                       |

### Emergency telephone number

|                                   |                          |                              |
|-----------------------------------|--------------------------|------------------------------|
| Association / Organisation        | NZ POISONS (24hr 7 days) | CHEMWATCH EMERGENCY RESPONSE |
| Emergency telephone numbers       | 0800 764766              | +64 800 700 112              |
| Other emergency telephone numbers | Not Available            | +61 2 9186 1132              |

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

|   |  |
|---|--|
| Classification [1]                              | Flammable Liquid Category 3, Acute Toxicity (Dermal) Category 4, Specific target organ toxicity - single exposure Category 2, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Reproductive Toxicity Category 2, Skin Sensitizer Category 1, Chronic Aquatic Hazard Category 4 |
| Legend:   | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI   |
| Determined by Chemwatch using GHS/HSNO criteria | 3.1C, 6.1D (dermal), 6.3A, 6.4A, 6.5B (contact), 6.8B, 6.9B, 9.1D  |

### Label elements

|                     |   |
|---------------------|---|
| Hazard pictogram(s) |  |
| SIGNAL WORD         | <b>WARNING</b>  |

### Hazard statement(s)

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.                         |
| H312 | Harmful in contact with skin.                        |
| H371 | May cause damage to organs.                          |
| H315 | Causes skin irritation.                              |
| H319 | Causes serious eye irritation.                       |
| H361 | Suspected of damaging fertility or the unborn child. |
| H317 | May cause an allergic skin reaction.                 |

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|      |   |
|------|---|
| H413 | May cause long lasting harmful effects to aquatic life. |
|------|---|

### Precautionary statement(s) Prevention

|      |  |
|------|--|
| P201 | Obtain special instructions before use.  |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed.   |
| P260 | Do not breathe mist/vapours/spray.   |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection.                     |
| P240 | Ground and bond container and receiving equipment.   |
| P241 | Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.              |
| P242 | Use non-sparking tools.  |
| P243 | Take action to prevent static discharges.  |
| P270 | Do not eat, drink or smoke when using this product.  |
| P273 | Avoid release to the environment.  |
| P272 | Contaminated work clothing should not be allowed out of the workplace.                         |

### Precautionary statement(s) Response

|                |  |
|----------------|--|
| P321           | Specific treatment (see advice on this label).   |
| P370+P378      | In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.  |
| P302+P352      | IF ON SKIN: Wash with plenty of water and soap.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P311      | IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider.  |
| P312           | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.  |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |

### Precautionary statement(s) Storage

|           |  |
|-----------|--|
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405      | Store locked up.                             |

### Precautionary statement(s) Disposal

|      |  |
|------|--|
| P501 | 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  
 Ingredients are required by the Hazard Substances (Safety Data Sheets) Notice 2017 to be identified:

### Mixtures

| CAS No    | %[weight] | Name  |
|-----------|-----------|---|
| 107-98-2  | 20-40     | <u>propylene glycol monomethyl ether - mixture of isomers</u> |
| 1330-20-7 | 10-20     | <u>xylene</u>   |
| 112-24-3  | 1-5       | <u>triethylenetetramine</u>                                   |

## SECTION 4 FIRST AID MEASURES

### Description of first aid measures

|              |   |
|--------------|---|
| Eye Contact  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh 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>▶ Seek medical attention without delay if pain persists or recurs.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>   |
| Inhalation   | <ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>   |

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|                  |   |
|------------------|---|
| <b>Ingestion</b> | <ul style="list-style-type: none"> <li>▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</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>▶ Seek medical advice.</li> </ul> |
|------------------|---|

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

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

- ▶ Foam.

### 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.   |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are flammable.</li> </ul> Combustion products include:<br>carbon monoxide (CO)<br>carbon dioxide (CO <sub>2</sub> )<br>other pyrolysis products typical of burning organic material. |

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | Remove all ignition sources. Contain spill with inert non- combustible absorbent then place in suitable, labelled container for waste disposal. Wipe up. Clean area with large quantity of water to complete clean- up.  |
| <b>Major Spills</b> | Remove all ignition sources. Clear area of personnel and move upwind. Wear appropriate personnel protective equipment and clothing to prevent exposure. Avoid breathing in mists or vapours and skin or eyes contact. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non- combustible material onto spillage. Use clean non- sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authority. |

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>▶ Containers, even those that have been emptied, may contain explosive vapours.</li> <li>▶ Electrostatic discharge may be generated during pumping - this may result in fire.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Other information</b> | ▶ Store in original containers in approved flammable liquid storage area.   |

### Conditions for safe storage, including any incompatibilities

|                                |   |
|--------------------------------|---|
| <b>Suitable container</b>      | ▶ Packing as supplied by manufacturer.  |
| <b>Storage incompatibility</b> | Xylenes: <ul style="list-style-type: none"> <li>▶ may ignite in contact with strong oxidisers</li> <li>▶ attack some plastics, rubber and coatings</li> </ul> |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## RESENE ARMOURZINC 120 HARDENER

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

| Source   | Ingredient   | Material name                     | TWA                 | STEL                | Peak          | Notes         |
|--|--|-----------------------------------|---------------------|---------------------|---------------|---------------|
| New Zealand Workplace Exposure Standards (WES) | propylene glycol monomethyl ether - mixture of isomers | Propylene glycol monomethyl ether | 100 ppm / 369 mg/m3 | 553 mg/m3 / 150 ppm | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | xylene   | Dimethylbenzene                   | 50 ppm / 217 mg/m3  | Not Available       | Not Available | Not Available |

#### EMERGENCY LIMITS

| Ingredient   | Material name  | TEEL-1        | TEEL-2        | TEEL-3        |
|--|--|---------------|---------------|---------------|
| propylene glycol monomethyl ether - mixture of isomers | Propylene glycol monomethyl ether; (Ucar Triol HG-170)                               | 100 ppm       | 160 ppm       | 660 ppm       |
| propylene glycol monomethyl ether - mixture of isomers | Propylene glycol monomethyl ether acetate, alpha-isomer; (1-Methoxypropyl-2-acetate) | Not Available | Not Available | Not Available |
| xylene   | Xylenes  | Not Available | Not Available | Not Available |
| triethylenetetramine                                   | Triethylenetetramine   | 3 ppm         | 14 ppm        | 83 ppm        |


| Ingredient   | Original IDLH | Revised IDLH  |
|--|---------------|---------------|
| propylene glycol monomethyl ether - mixture of isomers | Not Available | Not Available |
| xylene   | 900 ppm       | Not Available |
| triethylenetetramine                                   | Not Available | Not Available |

#### OCCUPATIONAL EXPOSURE BANDING

| Ingredient           | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|----------------------|-----------------------------------|----------------------------------|
| triethylenetetramine | E                                 | ≤ 0.1 ppm                        |

**Notes:** Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

### 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.   |
| <b>Personal protection</b>              |   |
| <b>Eye and face protection</b>          | <ul style="list-style-type: none"> <li>Safety glasses with side shields.</li> </ul>  |
| <b>Skin protection</b>                  | See Hand protection below  |
| <b>Hands/feet protection</b>            | <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>The material may produce skin sensitisation in predisposed individuals.</li> <li>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.</li> <li>When handling liquid-grade epoxy resins wear chemically protective gloves, boots and aprons.</li> </ul> |
| <b>Body protection</b>                  | See Other protection below   |
| <b>Other protection</b>                 | <ul style="list-style-type: none"> <li>Overalls.</li> <li>Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</li> </ul>   |

### Respiratory protection

Respiratory protection required in insufficiently ventilated working areas and during spraying. An approved respirator with a replaceable vapour/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to AS/NZS 1715 Standard, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716 Standard, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Type A Filter of sufficient capacity.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                       |                |  |               |
|-----------------------|----------------|--|---------------|
| <b>Appearance</b>     | Viscous liquid |  |               |
| <b>Physical state</b> | Liquid         | <b>Relative density (Water = 1)</b>            | 0.932         |
| <b>Odour</b>          | Not Available  | <b>Partition coefficient n-octanol / water</b> | Not Available |

Continued...

## RESENE ARMOURZINC 120 HARDENER

|  |               |                                  |               |
|--|---------------|----------------------------------|---------------|
| Odour threshold                              | Not Available | Auto-ignition temperature (°C)   | 346           |
| 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) | 125           | Molecular weight (g/mol)         | Not Available |
| Flash point (°C)                             | 30            | Taste                            | Not Available |
| Evaporation rate                             | Not Available | Explosive properties             | Not Available |
| Flammability                                 | Flammable.    | Oxidising properties             | Not Available |
| Upper Explosive Limit (%)                    | 10.2          | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%)                    | 1.5           | Volatile Component (%vol)        | 57            |
| Vapour pressure (kPa)                        | 1.3           | Gas group                        | Not Available |
| Solubility in water                          | Immiscible    | pH as a solution (1%)            | Not Available |
| Vapour density (Air = 1)                     | 3.3           | VOC g/L                          | 519           |

## SECTION 10 STABILITY AND REACTIVITY

|                                    |               |
|------------------------------------|---------------|
| Reactivity                         | See section 7 |
| Chemical stability                 | ▶ stable.     |
| 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      | Inhalation of vapours may cause drowsiness and dizziness.<br>Inhalation hazard is increased at higher temperatures.<br><br>Headache, fatigue, lassitude, irritability and gastrointestinal disturbances (e.g., nausea, anorexia and flatulence) are the most common symptoms of xylene overexposure.  |
| Ingestion    | Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result.<br>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.  |
| Skin Contact | The material may accentuate any pre-existing dermatitis condition<br>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.<br>Toxic effects may result from skin absorption<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.   |
| Eye          | Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.<br><br>The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations.   |
| Chronic      | Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.<br>Exposure to the material may cause concerns for human fertility, generally on the basis that results in animal studies provide sufficient evidence to cause a strong suspicion of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects, but which are not a secondary non-specific consequence of other toxic effects.<br><br>Exposure to the material may cause concerns for humans owing to possible developmental toxic effects, generally on the basis that results in appropriate animal studies provide strong suspicion of developmental toxicity in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of other toxic effects.<br>Prolonged or repeated contact with xylenes may cause defatting dermatitis with drying and cracking. |

|  |               |               |
|--|---------------|---------------|
| RESENE ARMOURZINC 120 HARDENER                         | TOXICITY      | IRRITATION    |
|  | Not Available | Not Available |
| propylene glycol monomethyl ether - mixture of isomers | TOXICITY      | IRRITATION    |
|  |               |               |

## RESENE ARMOURZINC 120 HARDENER

|                      |   |  |
|----------------------|---|--|
|                      | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>   | Eye (rabbit) 230 mg mild   |
|                      | Inhalation (rat) LC50: 6510.0635325 mg/l/6h <sup>[2]</sup>  | Eye (rabbit) 500 mg/24 h. - mild                                 |
|                      | Oral (rat) LD50: 5155 mg/kg <sup>[1]</sup>  | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                      |   | Skin (rabbit) 500 mg open - mild                                 |
|                      |   | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| xylene               | <b>TOXICITY</b>   | <b>IRRITATION</b>  |
|                      | Dermal (rabbit) LD50: >1700 mg/kg <sup>[2]</sup>  | Eye (human): 200 ppm irritant                                    |
|                      | Inhalation (rat) LC50: 4994.295 mg/l/4h <sup>[2]</sup>  | Eye (rabbit): 5 mg/24h SEVERE                                    |
|                      | Oral (rat) LD50: 3523-8700 mg/kg <sup>[2]</sup>   | Eye (rabbit): 87 mg mild   |
|                      |   | Eye: adverse effect observed (irritating) <sup>[1]</sup>         |
|                      |   | Skin (rabbit): 500 mg/24h moderate                               |
|                      |   | Skin: adverse effect observed (irritating) <sup>[1]</sup>        |
| triethylenetetramine | <b>TOXICITY</b>   | <b>IRRITATION</b>  |
|                      | Dermal (rabbit) LD50: =550 mg/kg <sup>[2]</sup>   | Eye (rabbit): 20 mg/24 h - moderate                              |
|                      | Oral (rat) LD50: 2500 mg/kg <sup>[2]</sup>  | Eye (rabbit): 49 mg - SEVERE                                     |
|                      |   | Skin (rabbit): 490 mg open SEVERE                                |
|                      |   | Skin (rabbit): 5 mg/24 SEVERE                                    |
| <b>Legend:</b>       | 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>PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS</b>                                      | NOTE: Exposure of pregnant rats and rabbits to the substance did not give rise to teratogenic effects at concentrations up to 3000 ppm. No significant acute toxicological data identified in literature search.<br>The material may be irritating to the eye, with prolonged contact causing inflammation.  |                                 |   |
| <b>XYLENE</b>  | Reproductive effector in rats<br>The substance is classified by IARC as Group 3:<br><b>NOT</b> classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing.  |                                 |   |
| <b>TRIETHYLENETETRAMINE</b>  | Handling ethyleneamine products is complicated by their tendency to react with other chemicals, such as carbon dioxide in the air, which results in the formation of solid carbamates.<br>The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic).<br>For alkyl polyamines:<br>The alkyl polyamines cluster consists of organic compounds containing two terminal primary amine groups and at least one secondary amine group. Typically these substances are derivatives of ethylenediamine, propylenediamine or hexanediamine.<br>Triethylenetetramine (TETA) is a severe irritant to skin and eyes and induces skin sensitisation.<br>TETA is of moderate acute toxicity: LD50(oral, rat) > 2000 mg/kg bw, LD50(dermal, rabbit) = 550 - 805 mg/kg bw.<br>Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis). |                                 |   |
| <b>RESENE ARMOURZINC 120 HARDENER &amp; TRIETHYLENETETRAMINE</b>                                   | The following information refers to contact allergens as a group and may not be specific to this product.<br>Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema.  |                                 |   |
| <b>RESENE ARMOURZINC 120 HARDENER &amp; PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS</b> | for propylene glycol ethers (PGEs):<br>Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA); tripropylene glycol methyl ether (TPM).<br>Testing of a wide variety of propylene glycol ethers Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series.  |                                 |   |
| <b>PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS &amp; TRIETHYLENETETRAMINE</b>           | Asthma-like symptoms may continue for months or even years after exposure to the material ceases.  |                                 |   |
| <b>PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS &amp; XYLENE</b>                         | The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic).  |                                 |   |
| <b>XYLENE &amp; TRIETHYLENETETRAMINE</b>   | The material may produce severe irritation to the eye causing pronounced inflammation.   |                                 |   |
| <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 either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## RESENE ARMOURZINC 120 HARDENER

## Toxicity

| RESENE ARMOURZINC 120 HARDENER | ENDPOINT | TEST DURATION (HR) | SPECIES       | VALUE         | SOURCE        |
|--------------------------------|----------|--------------------|---------------|---------------|---------------|
|                                |          | Not Available      | Not Available | Not Available | Not Available |

| propylene glycol monomethyl ether - mixture of isomers | ENDPOINT | TEST DURATION (HR) | SPECIES                       | VALUE    | SOURCE |
|--|----------|--------------------|-------------------------------|----------|--------|
|  | LC50     | 96                 | Fish                          | 100mg/L  | 1      |
|  | EC50     | 48                 | Crustacea                     | 373mg/L  | 2      |
|  | EC50     | 72                 | Algae or other aquatic plants | >1-mg/L  | 2      |
|  | NOEC     | 96                 | Algae or other aquatic plants | >=1-mg/L | 2      |

| xylene | ENDPOINT | TEST DURATION (HR)            | SPECIES                       | VALUE   | SOURCE |
|--------|----------|-------------------------------|-------------------------------|---------|--------|
|        | LC50     | 96                            | Fish                          | 2.6mg/L | 2      |
|        | EC50     | 48                            | Crustacea                     | 1.8mg/L | 2      |
|        | EC50     | 72                            | Algae or other aquatic plants | 3.2mg/L | 2      |
| NOEC   | 73       | Algae or other aquatic plants | 0.44mg/L                      | 2       |        |

| triethylenetetramine | ENDPOINT | TEST DURATION (HR)            | SPECIES                       | VALUE    | SOURCE |
|----------------------|----------|-------------------------------|-------------------------------|----------|--------|
|                      | LC50     | 96                            | Fish                          | 180mg/L  | 1      |
|                      | EC50     | 48                            | Crustacea                     | 31.1mg/L | 1      |
|                      | EC50     | 72                            | Algae or other aquatic plants | 2.5mg/L  | 1      |
| NOEC                 | 72       | Algae or other aquatic plants | <2.5mg/L                      | 1        |        |

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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

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 discharge into sewer or waterways.**

## Persistence and degradability

| Ingredient   | Persistence: Water/Soil     | Persistence: Air            |
|--|-----------------------------|-----------------------------|
| propylene glycol monomethyl ether - mixture of isomers | LOW (Half-life = 56 days)   | LOW (Half-life = 1.7 days)  |
| xylene   | HIGH (Half-life = 360 days) | LOW (Half-life = 1.83 days) |
| triethylenetetramine                                   | LOW                         | LOW                         |

## Bioaccumulative potential

| Ingredient   | Bioaccumulation        |
|--|------------------------|
| propylene glycol monomethyl ether - mixture of isomers | LOW (BCF = 2)          |
| xylene   | MEDIUM (BCF = 740)     |
| triethylenetetramine                                   | LOW (LogKOW = -2.6464) |

## Mobility in soil

| Ingredient   | Mobility          |
|--|-------------------|
| propylene glycol monomethyl ether - mixture of isomers | HIGH (KOC = 1)    |
| triethylenetetramine                                   | LOW (KOC = 309.9) |

## SECTION 13 DISPOSAL CONSIDERATIONS

## Waste treatment methods

|                              |  |
|------------------------------|--|
| Product / Packaging disposal | <ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> </ul> Legislation addressing waste disposal requirements may differ by country, state and/ or territory. <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ Recycle wherever possible.</li> </ul> Consult manufacturer for recycling option.<br>Resene Paintwise accepts residual unwanted paint and packaging. See Resene website for Paintwise information. Or contact a Local Authority for the disposal information. Do not discharge the substance into the environment. |
|------------------------------|--|

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Continued...

## RESENE ARMOURZINC 120 HARDENER

### Disposal Requirements


Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package.

The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

|                  |   |
|------------------|---|
|                  |  |
| Marine Pollutant | NO  |
| HAZCHEM          | *3Y   |

#### Land transport (UN)

|                              |  |
|------------------------------|--|
| UN number                    | 1263   |
| UN proper shipping name      | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) |
| Transport hazard class(es)   | Class : 3<br>Subrisk : Not Applicable  |
| Packing group                | III  |
| Environmental hazard         | Not Applicable   |
| Special precautions for user | Special provisions : 163; 223; 367<br>Limited quantity : 5 L   |

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

|                              |  |
|------------------------------|--|
| UN number                    | 1263   |
| UN proper shipping name      | Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds)  |
| Transport hazard class(es)   | ICAO/IATA Class : 3<br>ICAO / IATA Subrisk : Not Applicable<br>ERG Code : 3L   |
| Packing group                | III  |
| Environmental hazard         | Not Applicable   |
| Special precautions for user | Special provisions : A3 A72 A192<br>Cargo Only Packing Instructions : 366<br>Cargo Only Maximum Qty / Pack : 220 L<br>Passenger and Cargo Packing Instructions : 355<br>Passenger and Cargo Maximum Qty / Pack : 60 L<br>Passenger and Cargo Limited Quantity Packing Instructions : Y344<br>Passenger and Cargo Limited Maximum Qty / Pack : 10 L |

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

|                              |  |
|------------------------------|--|
| UN number                    | 1263   |
| UN proper shipping name      | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) |
| Transport hazard class(es)   | IMDG Class : 3<br>IMDG Subrisk : Not Applicable  |
| Packing group                | III  |
| Environmental hazard         | Not Applicable   |
| Special precautions for user | EMS Number : F-E , S-E<br>Special provisions : 163 223 367 955<br>Limited Quantities : 5 L   |



## RESENE ARMOURZINC 120 HARDENER

## 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

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard  |
|------------|---|
| HSR002662  | Surface Coatings and Colourants (Flammable) Group Standard 2017 |

## PROPYLENE GLYCOL MONOMETHYL ETHER - MIXTURE OF ISOMERS IS FOUND ON THE FOLLOWING REGULATORY LISTS

|   |   |
|---|---|
| Chemical Footprint Project - Chemicals of High Concern List                                 | New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data |
| New Zealand Approved Hazardous Substances with controls                                     | New Zealand Inventory of Chemicals (NZIoC)  |
| New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals | New Zealand Workplace Exposure Standards (WES)  |

## XYLENE IS FOUND ON THE FOLLOWING REGULATORY LISTS

|   |   |
|---|---|
| International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs | New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data |
| New Zealand Approved Hazardous Substances with controls                                       | New Zealand Inventory of Chemicals (NZIoC)  |
| New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals   | New Zealand Workplace Exposure Standards (WES)  |

## TRIETHYLENETETRAMINE IS FOUND ON THE FOLLOWING REGULATORY LISTS

|   |   |
|---|---|
| New Zealand Approved Hazardous Substances with controls                                     | New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data |
| New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals | New Zealand Inventory of Chemicals (NZIoC)  |

## Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Quantity beyond which controls apply for closed containers                           | Quantity beyond which controls apply when use occurring in open containers |
|--------------|--|--|
| 3.1C         | 500 L in containers greater than 5 L<br>1500 L in containers up to and including 5 L | 250 L<br>250 L   |

## Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities     |
|--------------------|----------------|
| Not Applicable     | Not Applicable |

Refer Group Standards for further information

## Tracking Requirements

Not Applicable

## National Inventory Status

| National Inventory  | Status  |
|---------------------|---|
| Australia - AICS    | Yes   |
| New Zealand - NZIoC | Yes   |
| <b>Legend:</b>      | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets) |

## SECTION 16 OTHER INFORMATION

|               |            |
|---------------|------------|
| Revision Date | 16/06/2020 |
| Initial Date  | 05/06/2015 |

## SDS Version Summary

| Version   | Issue Date | Sections Updated  |
|-----------|------------|---|
| 1.2.1.1.1 | 16/06/2020 | Acute Health (eye), Acute Health (inhaled), Acute Health (skin), Chronic Health, Classification, Environmental, First Aid (eye) |

## 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.

## 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

Continued...

**RESENE ARMOURZINC 120 HARDENER**

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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