

## Floral Clean Nowchem

Version No: 1.3  
Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: 21/03/2016  
Revision Date: 22/01/2021  
L.GHS.AUS.EN

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

#### Product Identifier

|                               |                |
|-------------------------------|----------------|
| Product name                  | Floral Clean   |
| Chemical Name                 | Not Applicable |
| Synonyms                      | Not Available  |
| Other means of identification | Not Available  |

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

|                          |  |
|--------------------------|--|
| Relevant identified uses | Best used as a multi purpose bathroom and general purpose cleaner. |
|--------------------------|--|

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

|                         |  |
|-------------------------|--|
| Registered company name | Nowchem  |
| Address                 | 112A Albatross Road NSW Australia                              |
| Telephone               | (02) 4421 4099   |
| Fax                     | (02) 4421 4932   |
| Website                 | <a href="http://www.nowchem.com.au">www.nowchem.com.au</a>     |
| Email                   | <a href="mailto:sales@nowchem.com.au">sales@nowchem.com.au</a> |

#### Emergency telephone number

|                                   |                |
|-----------------------------------|----------------|
| Association / Organisation        | Nowchem        |
| Emergency telephone numbers       | (02) 4421 4099 |
| Other emergency telephone numbers | 0413 809 255   |

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

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

#### ChemWatch Hazard Ratings

|              | Min | Max |
|--------------|-----|-----|
| Flammability | 1   | 1   |
| Toxicity     | 0   | 0   |
| Body Contact | 3   | 3   |
| Reactivity   | 1   | 1   |
| Chronic      | 0   | 0   |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|                    |   |
|--------------------|---|
| Poisons Schedule   | Not Applicable  |
| Classification [1] | Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1   |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

#### Label elements

|                     |  |
|---------------------|--|
| Hazard pictogram(s) |  |
|---------------------|--|

|             |        |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|

**Hazard statement(s)**

|      |                            |
|------|----------------------------|
| H315 | Causes skin irritation.    |
| H318 | Causes serious eye damage. |

**Precautionary statement(s) General**

|      |   |
|------|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children.  |
| P103 | Read label before use.  |

**Precautionary statement(s) Prevention**

|      |   |
|------|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children.  |
| P103 | Read label before use.  |
| P280 | Wear protective gloves/eye protection.                                |

**Precautionary statement(s) Response**

|                |  |
|----------------|--|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310           | Immediately call a POISON CENTER or doctor/physician.  |
| P321           | Specific treatment (see advice on this label).   |
| P362           | Take off contaminated clothing and wash before reuse.  |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No     | %[weight] | Name  |
|------------|-----------|---|
| 56539-66-3 | <10       | <u>3-methoxy-3-methyl-1-butanol</u>                 |
| 68424-85-1 | <10       | <u>benzyl C12-16-alkyldimethylammonium chloride</u> |
| 7320-34-5  | <10       | <u>potassium pyrophosphate</u>                      |
| 68439-50-9 | <10       | <u>alcohols C12-14 ethoxylated</u>                  |
| 2634-33-5  | <1        | <u>1,2-benzisothiazoline-3-one</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>▶ 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 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>  |

Continued...

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### Ingestion

- ▶ Immediately give a glass of water.
- ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
- ▶ For advice, 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).
- ▶ Carbon dioxide.

### Special hazards arising from the substrate or mixture

#### Fire Incompatibility

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

### Advice for firefighters

#### Fire Fighting

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear full body protective clothing with breathing apparatus.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ Use water delivered as a fine spray to control fire and cool adjacent area.
- ▶ Avoid spraying water onto liquid pools.
- ▶ **DO NOT** approach containers suspected to be hot.
- ▶ Cool fire exposed containers with water spray from a protected location.
- ▶ If safe to do so, remove containers from path of fire.

#### Fire/Explosion Hazard

- ▶ Slight fire hazard when exposed to heat or flame.
  - ▶ Heating may cause expansion or decomposition leading to violent rupture of containers.
  - ▶ May emit toxic fumes of carbon monoxide (CO).
  - ▶ May emit acrid smoke.
  - ▶ Mists containing combustible materials may be explosive.
- May emit poisonous fumes. May emit corrosive fumes.

#### HAZCHEM

Not Applicable

## 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

#### Minor Spills

- Environmental hazard - contain spillage.
- ▶ Remove all ignition sources.
  - ▶ Clean up all spills immediately.
  - ▶ Avoid breathing vapours and contact with skin and eyes.
  - ▶ Control personal contact with the substance, by using protective equipment.
  - ▶ Contain and absorb spill with sand, earth, inert material or vermiculite.
  - ▶ Wipe up.
  - ▶ Place in a suitable, labelled container for waste disposal.

#### Major Spills

- Environmental hazard - contain spillage.  
Moderate hazard.
- ▶ Clear area of personnel and move upwind.
  - ▶ Alert Fire Brigade and tell them location and nature of hazard.
  - ▶ Wear breathing apparatus plus protective gloves.
  - ▶ Prevent, by any means available, spillage from entering drains or water course.
  - ▶ No smoking, naked lights or ignition sources.
  - ▶ Increase ventilation.
  - ▶ Stop leak if safe to do so.
  - ▶ Contain spill with sand, earth or vermiculite.
  - ▶ Collect recoverable product into labelled containers for recycling.
  - ▶ Absorb remaining product with sand, earth or vermiculite.
  - ▶ Collect solid residues and seal in labelled drums for disposal.
  - ▶ Wash area and prevent runoff into drains.
  - ▶ If contamination of drains or waterways occurs, advise emergency services.

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

## SECTION 7 Handling and storage

### Precautions for safe handling

Continued...

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|                          |  |
|--------------------------|--|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <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>▶ Avoid contact with incompatible materials.</li> <li>▶ When handling, <b>DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</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>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>   |

## Conditions for safe storage, including any incompatibilities

|                                |  |
|--------------------------------|--|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Packaging as recommended by manufacturer (HDPE).</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul> |
| <b>Storage incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>   |

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Not Available

## Emergency Limits

| Ingredient                                   | Material name  | TEEL-1                | TEEL-2                | TEEL-3                  |
|--|--|-----------------------|-----------------------|-------------------------|
| benzyl C12-16-alkyldimethylammonium chloride | Quaternary ammonium compounds, benzyl-C12-C16-alkyldimethyl, chlorides | 1.3 mg/m <sup>3</sup> | 14 mg/m <sup>3</sup>  | 84 mg/m <sup>3</sup>    |
| potassium pyrophosphate                      | Potassium pyrophosphate; (Tetrapotassium diphosphate)                  | 61 mg/m <sup>3</sup>  | 680 mg/m <sup>3</sup> | 1,200 mg/m <sup>3</sup> |

| Ingredient                                   | Original IDLH | Revised IDLH  |
|--|---------------|---------------|
| 3-methoxy-3-methyl-1-butanol                 | Not Available | Not Available |
| benzyl C12-16-alkyldimethylammonium chloride | Not Available | Not Available |
| potassium pyrophosphate                      | Not Available | Not Available |
| alcohols C12-14 ethoxylated                  | Not Available | Not Available |
| 1,2-benzisothiazoline-3-one                  | Not Available | Not Available |

## Occupational Exposure Banding

| Ingredient                                   | Occupational Exposure Band Rating | Occupational Exposure Band Limit                                  |
|--|-----------------------------------|---|
| 3-methoxy-3-methyl-1-butanol                 | E                                 | ≤ 0.1 ppm   |
| benzyl C12-16-alkyldimethylammonium chloride | C                                 | > 0.1 to ≤ milligrams per cubic meter of air (mg/m <sup>3</sup> ) |
| potassium pyrophosphate                      | E                                 | ≤ 0.01 mg/m <sup>3</sup>  |
| alcohols C12-14 ethoxylated                  | E                                 | ≤ 0.1 ppm   |
| 1,2-benzisothiazoline-3-one                  | E                                 | ≤ 0.01 mg/m <sup>3</sup>  |

**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.

## MATERIAL DATA

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- ▶ cause inflammation
- ▶ cause increased susceptibility to other irritants and infectious agents
- ▶ lead to permanent injury or dysfunction
- ▶ permit greater absorption of hazardous substances and

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- ▶ acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

## Exposure controls

|                                  |  |
|----------------------------------|--|
| Appropriate engineering controls | <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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas.</p>  |
| Personal protection              |   |
| Eye and face protection          | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ 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. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>  |
| Skin protection                  | See Hand protection below  |
| Hands/feet protection            | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</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> </ul> <p>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. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>▶ frequency and duration of contact,</li> <li>▶ chemical resistance of glove material,</li> <li>▶ glove thickness and</li> <li>▶ dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>▶ When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>▶ When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>▶ Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>▶ Contaminated gloves should be replaced.</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> |
| Body protection                  | See Other protection below   |
| Other protection                 | <ul style="list-style-type: none"> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>  |

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

|  |                     |   |               |
|--|---------------------|---|---------------|
| Appearance                                   | Clear Purple Liquid |   |               |
| Physical state                               | Liquid              | Relative density (Water = 1)            | 1.00 - 1.03   |
| Odour  | Not Available       | Partition coefficient n-octanol / water | Not Available |
| Odour threshold                              | Not Available       | Auto-ignition temperature (°C)          | Not Available |
| pH (as supplied)                             | 7 - 10              | Decomposition temperature               | Not Available |
| Melting point / freezing point (°C)          | Not Available       | Viscosity (cSt)                         | Not Available |
| Initial boiling point and boiling range (°C) | Not Available       | Molecular weight (g/mol)                | Not Available |

Continued...

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|                           |               |                                  |               |
|---------------------------|---------------|----------------------------------|---------------|
| Flash point (°C)          | Not Available | Taste                            | Not Available |
| Evaporation rate          | Not Available | Explosive properties             | Not Available |
| Flammability              | Non Flammable | Oxidising properties             | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol)        | Not Available |
| Vapour pressure (kPa)     | Not Available | Gas group                        | Not Available |
| Solubility in water       | Miscible      | 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                 | <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> |
| 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.   |
| 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. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.  |
| Skin Contact | <p>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.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>  |
| Eye          | When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.  |
| Chronic      | <p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> <p>Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population.</p> <p>Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. Significant symptoms of exposure may persist for extended periods, even after exposure ceases. Symptoms can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes and passive smoking.</p> <p>There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.</p> |

| Floral Clean                                     | <table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Not Available</td><td>Not Available</td></tr> </table>  | TOXICITY | IRRITATION | Not Available                                    | Not Available  |  |  |
|--|---|----------|------------|--|--|--|--|
| TOXICITY   | IRRITATION  |          |            |  |  |  |  |
| Not Available                                    | Not Available   |          |            |  |  |  |  |
| 3-methoxy-3-methyl-1-butanol                     | <table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>dermal (rat) LD50: &gt;2000 mg/kg<sup>[1]</sup></td><td>Eye: adverse effect observed (irritating)<sup>[1]</sup></td></tr> <tr> <td>Oral(Rat) LD50: 0.004 mg/kg<sup>[1]</sup></td><td>Skin: no adverse effect observed (not irritating)<sup>[1]</sup></td></tr> </table> | TOXICITY | IRRITATION | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>    | Eye: adverse effect observed (irritating) <sup>[1]</sup> | Oral(Rat) LD50: 0.004 mg/kg <sup>[1]</sup> | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| TOXICITY   | IRRITATION  |          |            |  |  |  |  |
| dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>    | Eye: adverse effect observed (irritating) <sup>[1]</sup>  |          |            |  |  |  |  |
| Oral(Rat) LD50: 0.004 mg/kg <sup>[1]</sup>       | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |          |            |  |  |  |  |
| benzyl C12-16-alkyldimethylammonium chloride     | <table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: 1.709 mg/kg<sup>[1]</sup></td><td>Skin (rabbit): 25 mg SEVERE</td></tr> <tr> <td>Oral(Rat) LD50: 450 mg/kg<sup>[1]</sup></td><td></td></tr> </table>  | TOXICITY | IRRITATION | Dermal (rabbit) LD50: 1.709 mg/kg <sup>[1]</sup> | Skin (rabbit): 25 mg SEVERE                              | Oral(Rat) LD50: 450 mg/kg <sup>[1]</sup>   |  |
| TOXICITY   | IRRITATION  |          |            |  |  |  |  |
| Dermal (rabbit) LD50: 1.709 mg/kg <sup>[1]</sup> | Skin (rabbit): 25 mg SEVERE   |          |            |  |  |  |  |
| Oral(Rat) LD50: 450 mg/kg <sup>[1]</sup>         |   |          |            |  |  |  |  |

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|  |  |   |
|--|--|---|
| potassium pyrophosphate  | <b>TOXICITY</b>                                  | <b>IRRITATION</b>   |
|  | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup> | Eye: adverse effect observed (irritating) <sup>[1]</sup>          |
|  | Oral(Rat) LD50: >300-<2000 mg/kg <sup>[1]</sup>  | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
| alcohols C12-14 ethoxylated  | <b>TOXICITY</b>                                  | <b>IRRITATION</b>   |
|  | dermal (rat) LD50: >=2000 mg/kg <sup>[1]</sup>   | Eye (rabbit): irritant *  |
|  | Oral(Rat) LD50: >2000 mg/kg <sup>[1]</sup>       | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|  |  | Skin (rabbit): irritant *   |
| 1,2-benzisothiazoline-3-one  | <b>TOXICITY</b>                                  | <b>IRRITATION</b>   |
|  | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>    | Eye: adverse effect observed (irreversible damage) <sup>[1]</sup> |
|  | Oral(Rat) LD50: 454 mg/kg <sup>[1]</sup>         | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
| <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 |  |   |

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

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

|  |                 |                           |                               |                  |               |
|--|-----------------|---------------------------|-------------------------------|------------------|---------------|
| Floral Clean                                 | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>     | <b>Source</b> |
|  | Not Available   | Not Available             | Not Available                 | Not Available    | Not Available |
| 3-methoxy-3-methyl-1-butanol                 | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>     | <b>Source</b> |
|  | LC50            | 96                        | Fish                          | >100mg/L         | 2             |
|  | EC50            | 48                        | Crustacea                     | >1000mg/L        | 2             |
|  | EC50            | 72                        | Algae or other aquatic plants | >1000mg/L        | 2             |
|  | NOEC            | 504                       | Crustacea                     | 100mg/L          | 2             |
| benzyl C12-16-alkyldimethylammonium chloride | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>     | <b>Source</b> |
|  | LC50            | 96                        | Fish                          | -0.05-0.082mg/L  | 4             |
|  | EC50            | 48                        | Crustacea                     | -0.028-0.049mg/L | 4             |
|  | BCF             | 1440                      | Fish                          | 0.25-mg/L        | 4             |
|  | NOEC            | 504                       | Crustacea                     | >=0.00415mg/L    | 2             |
| potassium pyrophosphate                      | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>     | <b>Source</b> |
|  | LC50            | 96                        | Fish                          | >100mg/L         | 2             |
|  | EC50            | 48                        | Crustacea                     | >100mg/L         | 2             |
|  | EC50            | 72                        | Algae or other aquatic plants | >100mg/L         | 2             |
|  | NOEC            | 72                        | Algae or other aquatic plants | >100mg/L         | 2             |
| alcohols C12-14 ethoxylated                  | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>     | <b>Source</b> |
|  | LC50            | 96                        | Fish                          | 0.876mg/L        | 2             |
|  | EC50            | 48                        | Crustacea                     | 0.39mg/L         | 2             |
|  | EC50            | 72                        | Algae or other aquatic plants | 0.13mg/L         | 2             |
|  | EC0             | 72                        | Algae or other aquatic plants | 0.035mg/L        | 2             |
|  | NOEC            | 72                        | Algae or other aquatic plants | 0.036mg/L        | 2             |

Continued...

## Floral Clean

| 1,2-benzisothiazoline-3-one  | Endpoint | Test Duration (hr) | Species                       | Value           | Source |
|--|----------|--------------------|-------------------------------|-----------------|--------|
|  | LC50     | 96                 | Fish                          | -0.067-0.29mg/L | 4      |
|  | EC50     | 48                 | Crustacea                     | 0.097-mg/L      | 4      |
|  | EC50     | 72                 | Algae or other aquatic plants | 0.07mg/L        | 2      |
|  | NOEL     | 96                 | Fish                          | 0.031-mg/L      | 4      |
| <b>Legend:</b> 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 |          |                    |                               |                 |        |

Harmful to aquatic organisms.

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and/or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and/or delayed, to the structure and/or functioning of natural ecosystems.

For 3-methyl-3-methoxy butanol (MMB):

**Environmental fate:**

MMB is a colourless liquid with a water solubility of 100 g/l at 25 °C, a melting point of lower than -50 °C, a boiling point of 173 °C at 1013 hPa, a vapour pressure of 1.25 hPa at 25 °C and a density of 0.927 g/cm<sup>3</sup> at 25 °C. Based on the measured log K<sub>ow</sub> value of 0.18 bio- or geoaccumulation of this chemical is unlikely. Environmental distribution using a Mackay level III fugacity model suggests that when MMB is released into air or water, it remains in the original compartment whereas when released into soil, 29.4 % is distributed into air, 9.3 % into water and 61.3 % remains in soil. A ready biodegradability test showed that MMB failed to meet a criterion for ready biodegradability (biodegradation rate = 50% after 28 days), however complete biodegradation was observed in an inherent biodegradation test. A study on hydrolysis indicates that MMB is stable in water. In the atmosphere MMB is indirectly photodegraded by reaction with OH radicals with a half-life of 1.1 days

**Ecotoxicity:**

Algae.ErC50 (72 h): *Selenastrum capricornutum* >1000 mg/l; EbC50 >1000 mg/l (OECD TG 201, open system)

Daphnia magna EC50 (48 h): >1000 mg/l (OECD TG 202, static)

Fish LC50:(96 h): *Oryzias latipes* >100 mg/l (OECD TG 203, semi-static)

For chronic toxicity to algae, a 72 h NOEC of 1,000 mg/L (OECD TG 201, *Selenastrum capricornutum*, open system) was reported. In daphnids, a 21 d EC50 of >100 mg and a 21 d NOEC of 100 mg/L were reported (OECD TG 211, *Daphnia magna*, semi-static).

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

**Persistence and degradability**

| Ingredient                   | Persistence: Water/Soil | Persistence: Air |
|------------------------------|-------------------------|------------------|
| 3-methoxy-3-methyl-1-butanol | LOW                     | LOW              |

**Bioaccumulative potential**

| Ingredient                   | Bioaccumulation       |
|------------------------------|-----------------------|
| 3-methoxy-3-methyl-1-butanol | LOW (LogKOW = 0.4555) |

**Mobility in soil**

| Ingredient                   | Mobility       |
|------------------------------|----------------|
| 3-methoxy-3-methyl-1-butanol | HIGH (KOC = 1) |

**SECTION 13 Disposal considerations**

**Waste treatment methods**

|                              |   |
|------------------------------|---|
| Product / Packaging disposal | <p>Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
|                              |   |

**SECTION 14 Transport information**

**Labels Required**

|                  |                |
|------------------|----------------|
| Marine Pollutant | NO             |
| HAZCHEM          | Not Applicable |

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Continued...



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

Not Applicable

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

| Product name                                 | Group         |
|--|---------------|
| 3-methoxy-3-methyl-1-butanol                 | Not Available |
| benzyl C12-16-alkyldimethylammonium chloride | Not Available |
| potassium pyrophosphate                      | Not Available |
| alcohols C12-14 ethoxylated                  | Not Available |
| 1,2-benzisothiazoline-3-one                  | Not Available |

**Transport in bulk in accordance with the ICG Code**

| Product name                                 | Ship Type     |
|--|---------------|
| 3-methoxy-3-methyl-1-butanol                 | Not Available |
| benzyl C12-16-alkyldimethylammonium chloride | Not Available |
| potassium pyrophosphate                      | Not Available |
| alcohols C12-14 ethoxylated                  | Not Available |
| 1,2-benzisothiazoline-3-one                  | Not Available |

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture****3-methoxy-3-methyl-1-butanol is found on the following regulatory lists**

Australian Inventory of Industrial Chemicals (AIIC)

**benzyl C12-16-alkyldimethylammonium chloride 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 5Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)**potassium pyrophosphate is found on the following regulatory lists**

Australian Inventory of Industrial Chemicals (AIIC)

**alcohols C12-14 ethoxylated is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

**1,2-benzisothiazoline-3-one is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

**National Inventory Status**

| National Inventory                              | Status  |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes   |
| Canada - DSL                                    | Yes   |
| Canada - NDSL                                   | No (3-methoxy-3-methyl-1-butanol; benzyl C12-16-alkyldimethylammonium chloride; potassium pyrophosphate; alcohols C12-14 ethoxylated; 1,2-benzisothiazoline-3-one)  |
| China - IECSC                                   | Yes   |
| Europe - EINEC / ELINCS / NLP                   | Yes   |
| Japan - ENCS                                    | No (benzyl C12-16-alkyldimethylammonium chloride; potassium pyrophosphate; alcohols C12-14 ethoxylated)   |
| Korea - KECI                                    | Yes   |
| New Zealand - NZIoC                             | Yes   |
| Philippines - PICCS                             | Yes   |
| USA - TSCA                                      | Yes   |
| Taiwan - TCSI                                   | Yes   |
| Mexico - INSQ                                   | No (potassium pyrophosphate; alcohols C12-14 ethoxylated)   |
| Vietnam - NCI                                   | Yes   |
| Russia - ARIPS                                  | 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 | 22/01/2021 |
| Initial Date  | 14/03/2016 |

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**Floral Clean**

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**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.

**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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