Section 1. Identification

Product identifier : OPA Reagent, Part Number 5061-3335
Part no. : 5061-3335

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

Material uses : Reagents and Standards for Analytical Chemistry Laboratory Use
6 x 1 ml ampoule

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

H290 CORROSIVE TO METALS - Category 1
H302 ACUTE TOXICITY (oral) - Category 4
H314 SKIN CORROSION/IRRITATION - Category 1A
H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
H317 SKIN SENSITISATION - Category 1
H360 REPRODUCTIVE TOXICITY - Category 1
H371 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2
H411 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%

GHS label elements

Hazard pictograms :

Signal word : DANGER

Hazard statements : H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H360 - May damage fertility or the unborn child.
H371 - May cause damage to organs.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P281 - Use personal protective equipment as required.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

Storage : Not applicable.

Date of issue/Date of revision : 28/10/2021
Date of previous issue : 09/04/2020
Version : 6
Section 2. Hazard(s) identification

Disposal: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
Additional warning phrases: Not applicable.

Other hazards which do not result in classification: Causes severe digestive tract burns.

Section 3. Composition and ingredient information

Substance/mixture: Mixture

CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>≤10</td>
<td>1310-58-3</td>
</tr>
<tr>
<td>boric acid</td>
<td>≤5</td>
<td>10043-35-3</td>
</tr>
<tr>
<td>3-Mercaptopropionic acid</td>
<td>≤2.8</td>
<td>107-96-0</td>
</tr>
<tr>
<td>Methanol</td>
<td>≤3</td>
<td>67-56-1</td>
</tr>
<tr>
<td>Phthalaldehyde</td>
<td>≤2.1</td>
<td>643-79-8</td>
</tr>
<tr>
<td>Potassium thiocyanate</td>
<td>≤3</td>
<td>333-20-0</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.
Section 4. First aid measures

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.
Inhalation: May cause damage to organs following a single exposure if inhaled.
Skin contact: Causes severe burns. May cause damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.
Ingestion: Severely corrosive to the digestive tract. Causes severe burns. Harmful if swallowed. May cause damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
- pain
- watering
- redness
Inhalation: Adverse symptoms may include the following:
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations
Skin contact: Adverse symptoms may include the following:
- pain or irritation
- blistering may occur
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations
Ingestion: Adverse symptoms may include the following:
- stomach pains
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Section 5. Firefighting measures

| Hazardous thermal decomposition products | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, metal oxide/oxides, Formaldehyde. |
| Special protective actions for fire-fighters | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| Hazchem code | 2R |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| Environmental precautions | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |

Methods and material for containment and cleaning up

| Methods for cleaning up | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor. |

Section 7. Handling and storage

Precautions for safe handling

| Protective measures | Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage. |
| Advice on general occupational hygiene | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities:
Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>Safe Work Australia (Australia, 12/2019). PEAK: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 1/2021). TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction</td>
</tr>
<tr>
<td></td>
<td>STEL: 6 mg/m³ 15 minutes. Form: Inhalable fraction</td>
</tr>
<tr>
<td>boric acid</td>
<td>Safe Work Australia (Australia, 12/2019). Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>STEL: 328 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 262 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 200 ppm 8 hours.</td>
</tr>
<tr>
<td>Methanol</td>
<td>ACGIH TLV (United States, 1/2021). Absorbed through skin. Skin sensitiser.</td>
</tr>
<tr>
<td></td>
<td>Inhalation sensitiser.</td>
</tr>
<tr>
<td></td>
<td>C: 0.1 ppb Form: Vapor fraction SL: 25 μg/100 cm²</td>
</tr>
<tr>
<td>Phthalaldehyde</td>
<td>Safe Work Australia (Australia, 12/2019). Absorbed through skin.</td>
</tr>
<tr>
<td>Potassium thiocyanate</td>
<td>TWA: 5 mg/m³, (as CN) 8 hours.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls:
If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls:
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures:
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Section 8. Exposure controls and personal protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**Appearance**

- **Physical state**: Liquid.
- **Colour**: Yellow. [Light]
- **Odour**: Slight
- **Odour threshold**: Not available.
- **pH**: 10.4
- **Melting point/freezing point**: Not available.
- **Boiling point, initial boiling point, and boiling range**: Not available.

**Flash point**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Closed cup</th>
<th>Open cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>9.7</td>
<td>49.5</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>&gt;109.85</td>
<td>&gt;229.7</td>
</tr>
</tbody>
</table>

**Evaporation rate**: <1 (butyl acetate = 1)

**Flammability**: Not applicable.

**Lower and upper explosion limit/flammability limit**: Not available.

**Vapour pressure**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Vapour Pressure at 20°C</th>
<th>Vapour pressure at 50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>126.96</td>
<td>16.9</td>
</tr>
<tr>
<td>Water</td>
<td>23.8</td>
<td>3.2</td>
</tr>
</tbody>
</table>

**Relative vapour density**: Not available.

**Relative density**: 1.045

**Density**: 1.045 g/cm³

**Solubility**: Easily soluble in the following materials: cold water and hot water.

**Miscible with water**: Yes.
Section 9. Physical and chemical properties and safety characteristics

- **Partition coefficient: n-octanol/water**
  - Not applicable.

- **Auto-ignition temperature**
  - Not applicable.

- **Decomposition temperature**
  - Not available.

- **Viscosity**
  - Not available.

- **Particle characteristics**
  - Median particle size:
    - Not applicable.

### Ingredient name

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>°C</th>
<th>°F</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>455</td>
<td>851</td>
<td>DIN 51794</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

- **Reactivity**
  - No specific test data related to reactivity available for this product or its ingredients.

- **Chemical stability**
  - The product is stable.

- **Possibility of hazardous reactions**
  - Under normal conditions of storage and use, hazardous reactions will not occur.

- **Conditions to avoid**
  - No specific data.

- **Incompatible materials**
  - Reactive or incompatible with the following materials:
    - Metals
    - Reactive or incompatible with the following materials: reducing materials.

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

Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>273 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>3-Mercaptopionic acid</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>1818 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>Methanol</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>96 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>189.95 mg/l</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>145000 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>83.84 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>64000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>15800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>854 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 1 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Guinea pig</td>
<td>-</td>
<td>24 hours 50 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 50 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

| Methanol                | Eyes - Moderate irritant        | Rabbit      | -     | 24 hours 100 mg | -           |
|                         | Eyes - Moderate irritant        | Rabbit      | -     | 40 mg          | -           |
|                         | Skin - Moderate irritant        | Rabbit      | -     | 24 hours 20    | -           |
Section 11. Toxicological information

Sensitisation
Not available.

Mutagenicity
Conclusion/Summary : Not available.

Carcinogenicity
Conclusion/Summary : Not available.

Reproductive toxicity
Conclusion/Summary : Not available.

Teratogenicity
Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>Category 1</td>
<td>-</td>
<td>- Respiratory tract irritation</td>
</tr>
<tr>
<td>Phthalaldehyde</td>
<td>Category 3</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : May cause damage to organs following a single exposure if inhaled.

Skin contact : Causes severe burns. May cause damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.

Ingestion : Severely corrosive to the digestive tract. Causes severe burns. Harmful if swallowed. May cause damage to organs following a single exposure if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced foetal weight
increase in foetal deaths
skeletal malformations
## Section 11. Toxicological information

### Ingestion
- Adverse symptoms may include the following:
  - stomach pains
  - reduced foetal weight
  - increase in foetal deaths
  - skeletal malformations

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure
- Potential immediate effects: Not available.
- Potential delayed effects: Not available.

#### Long term exposure
- Potential immediate effects: Not available.
- Potential delayed effects: Not available.

### Potential chronic health effects
- **General**: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Reproductive toxicity**: May damage fertility or the unborn child.

### Numerical measures of toxicity

#### Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapours) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPA Reagent, Part Number 5061-3335</td>
<td>1922.9</td>
<td>13200</td>
<td>N/A</td>
<td>150</td>
<td>56.6</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>500</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>boric acid</td>
<td>2660</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3-Mercaptopropionic acid</td>
<td>96</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1.818</td>
</tr>
<tr>
<td>Methanol</td>
<td>100</td>
<td>300</td>
<td>N/A</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Potassium thiocyanate</td>
<td>854</td>
<td>1100</td>
<td>N/A</td>
<td>N/A</td>
<td>1.5</td>
</tr>
</tbody>
</table>

#### Other information
- Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage.

## Section 12. Ecological information

### Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>Acute LC50 80 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult Crustaceans - Ceriodaphnia dubia</td>
<td>96 hours</td>
</tr>
<tr>
<td>boric acid</td>
<td>Acute LC50 45.5 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>3-Mercaptopropionic acid</td>
<td>Acute LC50 133000 μg/l Fresh water</td>
<td>Fish - Pflagus major</td>
<td>96 hours</td>
</tr>
<tr>
<td>Methanol</td>
<td>Chronic NOEC 6000 μg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 28 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>87 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 2100 μg/l Fresh water</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 9 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 98 mg/l Fresh water</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2736 mg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>boric acid</td>
<td>-1.09</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>3-Mercaptopropionic acid</td>
<td>-2.32</td>
<td>&lt;10</td>
<td>low</td>
</tr>
<tr>
<td>Methanol</td>
<td>-0.77</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Potassium thiocyanate</td>
<td>-2.52</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Mercaptopropionic acid</td>
<td>301A Ready Biodegradability - DOC Die-Away Test</td>
<td>96 % - Readily - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

Mobility in soil

| Soil/water partition coefficient (K<sub>oc</sub>) | Not available. |

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code.

Additional information

Remarks: De minimis quantities

Special precautions for user : Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons
6, 5

Model Work Health and Safety Regulations - Scheduled Substances

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>Restricted hazardous chemical [For spray painting if the substance contains more than 1% by volume]</td>
</tr>
</tbody>
</table>

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Montreal Protocol
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada : At least one component is not listed in DSL but all such components are listed in NDSL.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : Japan inventory (CSCL): All components are listed or exempted.
          Japan inventory (ISHL): All components are listed or exempted.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.
Thailand : All components are listed or exempted.
Turkey : Not determined.
United States : All components are active or exempted.
Viet Nam : All components are listed or exempted.
Section 16. Any other relevant information

History

- **Date of issue/Date of revision**: 28/10/2021
- **Date of previous issue**: 09/04/2020
- **Version**: 6

Key to abbreviations:
- ADG = Australian Dangerous Goods
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- N/A = Not available
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORROSIVE TO METALS - Category 1</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>ACUTE TOXICITY (oral) - Category 4</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN CORROSION/IRRITATION - Category 1A</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN SENSITISATION - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>REPRODUCTIVE TOXICITY - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY - SINGLE</td>
<td>Calculation method</td>
</tr>
<tr>
<td>EXPOSURE - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

References: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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