



# Safety Data Sheet

## Acetic acid, >80% aqueous solution

### Revision 4, 14/02/2023

#### 1. IDENTIFICATION

|                     |                                                                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name        | Acetic acid, >80% aqueous solution                                                                                                                                                                                                          |
| Other Names         | No Data Available                                                                                                                                                                                                                           |
| Uses                | Manufacture of chemicals; research; photographic chemicals; latex coagulant; oil-well acidifier; textile printing; solvent for gums, resins and volatile oils; dyes; antimicrobial agent; pharmaceuticals; food preservative; cosmetic use. |
| Chemical Family     | No Data Available                                                                                                                                                                                                                           |
| Chemical Formula    | C2H4O2                                                                                                                                                                                                                                      |
| Chemical Name       | Acetic acid, aqueous solution (>80%)                                                                                                                                                                                                        |
| Product Description | No Data Available                                                                                                                                                                                                                           |

#### Contact Details of the Supplier of this Safety Data Sheet

| Organisation             | Location                                              | Telephone    |
|--------------------------|-------------------------------------------------------|--------------|
| Aurora Cleaning Supplies | F1 / 5 Bungaleen Court<br>Dandenong South<br>VIC 3175 | 03 9768 2669 |

#### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

| Organisation            | Location     | Telephone                                  |
|-------------------------|--------------|--------------------------------------------|
| Chemcall                | Australia    | 1800-127406<br>+64-4-9179888               |
| Chemcall                | Malaysia     | +64-4-9179888                              |
| Chemcall                | New Zealand  | 0800-243622<br>+64-4-9179888               |
| National Poisons Centre | New Zealand  | 0800-764766                                |
| CHEMTREC                | USA & Canada | 1-800-424-9300 CN723420<br>+1-703-527-3887 |

#### 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 6

Globally Harmonised System

|                              |                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard Classification</b> | Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)                                    |
| <b>Hazard Categories</b>     | Flammable Liquids - Category 3<br>Corrosive to Metals - Category 1<br>Skin Corrosion/Irritation - Category 1B<br>Serious Eye Damage/Irritation - Category 1 |

**Pictograms**



|                    |        |
|--------------------|--------|
| <b>Signal Word</b> | Danger |
|--------------------|--------|

|                          |             |                                          |
|--------------------------|-------------|------------------------------------------|
| <b>Hazard Statements</b> | <b>H226</b> | Flammable liquid and vapour.             |
|                          | <b>H290</b> | May be corrosive to metals.              |
|                          | <b>H314</b> | Causes severe skin burns and eye damage. |

|                                 |            |                           |                                                                                                                                                                          |
|---------------------------------|------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautionary Statements</b> | Prevention | <b>P210</b>               | Keep away from heat/sparks/open flames/hot surfaces. No smoking.                                                                                                         |
|                                 |            | <b>P260</b>               | Do not breathe mist/vapour/spray.                                                                                                                                        |
|                                 |            | <b>P280</b>               | Wear protective gloves/protective clothing/eye protection/face protection.                                                                                               |
|                                 |            | <b>P233</b>               | Keep container tightly closed.                                                                                                                                           |
|                                 |            | <b>P240</b>               | Ground and bond container and receiving equipment.                                                                                                                       |
|                                 |            | <b>P241</b>               | Use explosion-proof electrical/ventilating/lighting and all other equipment.                                                                                             |
|                                 |            | <b>P242</b>               | Use non-sparking tools.                                                                                                                                                  |
|                                 |            | <b>P243</b>               | Take action to prevent static discharges.                                                                                                                                |
|                                 | Response   | <b>P370 + P378</b>        | In case of fire: Alcohol resistant foam is the preferred fire-fighting medium. However, if it is not available, fine water spray or water fog can be used to extinguish. |
|                                 |            | <b>P303 + P361 + P353</b> | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.                                                                   |
|                                 |            | <b>P310</b>               | Immediately call a POISON CENTER or doctor.                                                                                                                              |
|                                 |            | <b>P305 + P351 + P338</b> | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.                                         |
|                                 |            | <b>P390</b>               | Absorb spillage to prevent material-damage.                                                                                                                              |
|                                 |            | <b>P301 + P330 + P331</b> | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                                                                                       |
|                                 |            | <b>P363</b>               | Wash contaminated clothing before reuse.                                                                                                                                 |
|                                 |            | <b>P304 + P340</b>        | IF INHALED: Remove victim to fresh air and keep comfortable for breathing.                                                                                               |
|                                 | Storage    | <b>P403 + P235</b>        | Store in a well-ventilated place. Keep cool.                                                                                                                             |
|                                 |            | <b>P406</b>               | Store in corrosive resistant container with a resistant inner liner.                                                                                                     |
|                                 |            | <b>P405</b>               | Store locked up.                                                                                                                                                         |
|                                 | Disposal   | <b>P501</b>               | Dispose of contents/container in accordance with local / regional / national / international regulations.                                                                |

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

|                                       |                                                                                                                                 |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Dangerous Goods Classification</b> | Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

|                             |                       |             |                                                               |
|-----------------------------|-----------------------|-------------|---------------------------------------------------------------|
| <b>HSNO Classifications</b> | Physical Hazards      | <b>3.1C</b> | Flammable liquid - medium hazard                              |
|                             | Health Hazards        | <b>6.1D</b> | Substances that are acutely toxic - Harmful                   |
|                             |                       | <b>6.9B</b> | Substances that are harmful to human target organs or systems |
|                             |                       | <b>8.1A</b> | Substances that are corrosive to metals                       |
|                             |                       | <b>8.2B</b> | Substances that are corrosive to dermal tissue UN PGII        |
|                             |                       | <b>8.3A</b> | Substances that are corrosive to ocular tissue                |
|                             | Environmental Hazards | <b>9.3C</b> | Substances that are harmful to terrestrial vertebrates        |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

| Chemical Entity | Formula | CAS Number | Proportion |
|-----------------|---------|------------|------------|
| Acetic acid     | C2H4O2  | 64-19-7    | >80 %      |
| Water           | H2O     | 7732-18-5  | Balance %  |

### 4. FIRST AID MEASURES

#### Description of necessary measures according to routes of exposure

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Swallowed</b>                                 | IF SWALLOWED: Rinse mouth, then drink plenty of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Transport to hospital or doctor without delay. Never give anything by mouth to an unconscious person.                                                                                                       |
| <b>Eye</b>                                       | IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice. Transport to hospital or doctor without delay.                                                                            |
| <b>Skin</b>                                      | IF ON SKIN (or hair): Remove contaminated clothing and shoes immediately. Flush skin and hair with running water for at least 15 minutes. In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. Immediately call a Poison Centre or doctor/physician for advice. Wash contaminated clothing and shoes before reuse. Treat chemical burns as thermal burns with non-adherent gauze and wrapping. Transport to hospital or doctor without delay. |
| <b>Inhaled</b>                                   | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device - Administer oxygen if breathing is difficult. Transport to hospital or doctor without delay.                                        |
| <b>Advice to Doctor</b>                          | Treat symptomatically. Symptoms may be delayed. Keep victim calm and warm - Obtain immediate medical care. Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.                                                                                                                                                                                                                                                      |
| <b>Medical Conditions Aggravated by Exposure</b> | No information available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### 5. FIRE FIGHTING MEASURES

|                                |                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Measures</b>        | Alert Fire Brigade and tell them location and nature of hazard. Fight fire from a safe distance, with adequate cover. If safe to do so, move undamaged containers from fire area. Do NOT approach containers suspected to be hot. Cool container with water spray until well after fire is out. Avoid getting water inside containers. |
| <b>Flammability Conditions</b> | FLAMMABLE LIQUID & VAPOUR: May be ignited by heat, sparks or flame.                                                                                                                                                                                                                                                                    |
| <b>Extinguishing Media</b>     | Use dry chemical, Carbon dioxide (CO2), alcohol-resistant foam or water spray for extinction - Do not use water jets. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used.                                                                                           |

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire and Explosion Hazard</b>          | Risk of violent reaction or explosion: Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Most vapours are heavier than air and will collect in low or confined areas. Many liquids are lighter than water. Containers may explode when heated. Fire exposed containers may vent contents through pressure relief valves. Vapours from runoff may create an explosion hazard. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. |
| <b>Hazardous Products of Combustion</b>   | Fire will produce irritating, toxic and/or corrosive gases, including oxides of Carbon and other pyrolysis products typical of burning organic material.                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Special Fire Fighting Instructions</b> | Contain runoff from fire control or dilution water - Runoff may be toxic and/or corrosive and may pollute waterways; Vapours from runoff may create an explosion hazard.                                                                                                                                                                                                                                                                                                                                                 |
| <b>Personal Protective Equipment</b>      | Wear self-contained breathing apparatus (SCBA), fully-encapsulating, gas-tight suit and structural firefighting uniform. SCBA and chemical splash suits will offer limited protection for brief exposure.                                                                                                                                                                                                                                                                                                                |
| <b>Flash Point</b>                        | 39 - 60 °C [Closed cup]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Lower Explosion Limit</b>              | No Data Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Upper Explosion Limit</b>              | No Data Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Auto Ignition Temperature</b>          | 485 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Hazchem Code</b>                       | •2P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## 6. ACCIDENTAL RELEASE MEASURES

|                                             |                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Response Procedure</b>           | Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material - Slippery when spilt. Clean up all spills immediately. Do not breathe vapours and prevent contact with eyes, skin and clothing. |
| <b>Clean Up Procedures</b>                  | Collect recoverable product into labelled containers for recycling. Absorb remaining product with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it in suitable containers for later disposal (see SECTION 13).                                                                   |
| <b>Containment</b>                          | Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds.                                                                                                                                           |
| <b>Decontamination</b>                      | Neutralise residues with lime or soda ash; Wash away remainder with plenty of water.                                                                                                                                                                                                                                                                   |
| <b>Environmental Precautionary Measures</b> | Small spillages and decontamination run-off may be washed to drains with large quantities of water. Due care must however still be exercised to avoid unnecessary pollution of watercourses.                                                                                                                                                           |
| <b>Evacuation Criteria</b>                  | Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground. Large spill: Immediately contact Police or Fire Brigade; Consider initial downwind evacuation of areas within at least 250 m.                                                                                                   |
| <b>Personal Precautionary Measures</b>      | Wear self-contained breathing apparatus (SCBA), fully-encapsulating, gas-tight suit and structural firefighting uniform when handling leaking or damaged containers and equipment. SCBA and chemical splash suits will offer limited protection for brief exposure provided there is no risk of ignition.                                              |

## 7. HANDLING AND STORAGE

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b>  | Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours/spray and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). FLAMMABLE LIQUID & VAPOUR: Keep away from heat and sources of ignition - No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. CORROSIVE TO METALS: Absorb spillage to prevent material damage (see SECTION 6). Avoid contact with incompatible materials. To avoid violent reaction, ALWAYS add material to water and NEVER water to material. |
| <b>Storage</b>   | Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect containers against physical damage and check regularly for leaks. Keep away from heat and sources of ignition - No smoking. Keep away from food/feedstuffs and incompatible materials (see SECTION 10). Store locked up and according to applicable regulations for flammable liquids. Have flammable gas detectors and appropriate extinguishing capability in storage area; Keep adsorbents for leaks and spills readily available.                                                                                                                                                                                                                                                                                                                                                                |
| <b>Container</b> | Keep only in original container or suitable corrosive-resistant container. Check that containers are clearly labelled and free from leaks. Do NOT use aluminium or galvanised containers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>                       | <p>COMPONENT: Acetic acid (CAS No. 64-19-7):</p> <ul style="list-style-type: none"> <li>- Safe Work Australia Exposure Standard: TWA = 10 ppm (25 mg/m<sup>3</sup>); STEL = 15 ppm (37 mg/m<sup>3</sup>).</li> <li>- New Zealand Workplace Exposure Standard: TWA = 10 ppm (25 mg/m<sup>3</sup>); STEL = 15 ppm (37 mg/m<sup>3</sup>).</li> <li>- NIOSH REL: TWA = 10 ppm (25 mg/m<sup>3</sup>); ST = 15 ppm (37 mg/m<sup>3</sup>).</li> <li>- OSHA PEL: TWA = 10 ppm (25 mg/m<sup>3</sup>).</li> <li>- Immediately dangerous to life or health (IDLH) concentration: 50 ppm.</li> </ul>                                                                                                                                                                                                               |
| <b>Exposure Limits</b>               | No Data Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Biological Limits</b>             | No information available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Engineering Measures</b>          | A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Use explosion-proof electrical/ventilating/lighting equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Personal Protection Equipment</b> | <ul style="list-style-type: none"> <li>- Respiratory protection: If risk of overexposure exists, wear respiratory protection. Recommended: Organic vapour, inorganic vapour and acid gas filter respirator (type ABE) of sufficient capacity (refer to AS/NZS 1715 &amp; 1716).</li> <li>- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles and face-shield.</li> <li>- Hand protection: Wear protective gloves. Recommended: Elbow-length impervious gloves, e.g. PVC.</li> <li>- Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, splash apron or equivalent impervious outer garment, rubber boots. PVC protective suit may be required if exposure severe.</li> </ul> |
| <b>Special Hazards Precautions</b>   | Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Work Hygienic Practices</b>       | Do not eat, drink or smoke when using this product. Always wash hands with soap and water after handling. Do NOT allow clothing wet with material to stay in contact with skin. Work clothes should be laundered separately. Launder contaminated clothing before re-use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                  |                                                          |
|----------------------------------|----------------------------------------------------------|
| <b>Physical State</b>            | Liquid                                                   |
| <b>Appearance</b>                | Clear liquid                                             |
| <b>Odour</b>                     | Pungent, sour, vinegar-like                              |
| <b>Colour</b>                    | Colourless                                               |
| <b>pH</b>                        | 2 - 4                                                    |
| <b>Vapour Pressure</b>           | No Data Available                                        |
| <b>Relative Vapour Density</b>   | No Data Available                                        |
| <b>Boiling Point</b>             | 118 °C                                                   |
| <b>Melting Point</b>             | 17 °C                                                    |
| <b>Freezing Point</b>            | No Data Available                                        |
| <b>Solubility</b>                | Miscible with water - Soluble in common organic solvents |
| <b>Specific Gravity</b>          | 1.05 (Water = 1)                                         |
| <b>Flash Point</b>               | 39 - 60 °C [Closed cup]                                  |
| <b>Auto Ignition Temp</b>        | 485 °C                                                   |
| <b>Evaporation Rate</b>          | No Data Available                                        |
| <b>Bulk Density</b>              | No Data Available                                        |
| <b>Corrosion Rate</b>            | No Data Available                                        |
| <b>Decomposition Temperature</b> | No Data Available                                        |
| <b>Density</b>                   | No Data Available                                        |
| <b>Specific Heat</b>             | No Data Available                                        |
| <b>Molecular Weight</b>          | No Data Available                                        |
| <b>Net Propellant Weight</b>     | No Data Available                                        |
| <b>Octanol Water Coefficient</b> | No Data Available                                        |
| <b>Particle Size</b>             | No Data Available                                        |

|                                                                       |                                                                                                                                                                        |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Partition Coefficient</b>                                          | No Data Available                                                                                                                                                      |
| <b>Saturated Vapour Concentration</b>                                 | No Data Available                                                                                                                                                      |
| <b>Vapour Temperature</b>                                             | No Data Available                                                                                                                                                      |
| <b>Viscosity</b>                                                      | No Data Available                                                                                                                                                      |
| <b>Volatile Percent</b>                                               | No Data Available                                                                                                                                                      |
| <b>VOC Volume</b>                                                     | No Data Available                                                                                                                                                      |
| <b>Additional Characteristics</b>                                     | No information available.                                                                                                                                              |
| <b>Potential for Dust Explosion</b>                                   | Not applicable.                                                                                                                                                        |
| <b>Fast or Intensely Burning Characteristics</b>                      | Risk of violent reaction or explosion.                                                                                                                                 |
| <b>Flame Propagation or Burning Rate of Solid Materials</b>           | No information available.                                                                                                                                              |
| <b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b> | No information available.                                                                                                                                              |
| <b>Properties That May Initiate or Contribute to Fire Intensity</b>   | FLAMMABLE LIQUID & VAPOUR: May be ignited by heat, sparks or flame.                                                                                                    |
| <b>Reactions That Release Gases or Vapours</b>                        | Fire/decomposition will produce irritating, toxic and/or corrosive gases, including oxides of Carbon and other pyrolysis products typical of burning organic material. |
| <b>Release of Invisible Flammable Vapours and Gases</b>               | Vapours may form explosive mixtures with air. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.                                   |

## 10. STABILITY AND REACTIVITY

|                                         |                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Information</b>              | Reacts violently with strong oxidants - This generates fire and explosion hazard. Reacts violently with strong bases, strong acids and many other compounds. Attacks some forms of plastic, rubber and coatings. May be corrosive to metals, producing hydrogen gas, which may form an explosive mixture with air. |
| <b>Chemical Stability</b>               | Product is considered stable; Unstable in the presence of incompatible materials.                                                                                                                                                                                                                                  |
| <b>Conditions to Avoid</b>              | Keep away from heat and sources of ignition. Avoid contact with incompatible materials.                                                                                                                                                                                                                            |
| <b>Materials to Avoid</b>               | Incompatible/reactive with strong caustics, alkalis, amines, oxidising agents, metals.                                                                                                                                                                                                                             |
| <b>Hazardous Decomposition Products</b> | Fire/decomposition will produce irritating, toxic and/or corrosive gases, including oxides of Carbon and other pyrolysis products typical of burning organic material.                                                                                                                                             |
| <b>Hazardous Polymerisation</b>         | Hazardous polymerisation will not occur.                                                                                                                                                                                                                                                                           |

## 11. TOXICOLOGICAL INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Information</b> | <ul style="list-style-type: none"> <li>- Acute toxicity: Corrosive on ingestion. Ingestion may cause chemical burns to the mouth and gastrointestinal tract; and may cause delayed stomach, intestinal and oesophageal perforation. Severe health effects have been reported (in humans) following single exposure by different routes, mainly due to the local corrosive effects of the chemical leading to systemic effects.</li> <li>- Skin corrosion/irritation: Corrosive to the skin. Causes severe skin burns, pain, redness, blisters.</li> <li>- Eye damage/irritation: Corrosive to the eyes. Causes serious eye damage, redness, pain, severe deep burns, loss of vision.</li> <li>- Respiratory/skin sensitisation: No information available.</li> <li>- Germ cell mutagenicity: Not considered to be genotoxic.</li> <li>- Carcinogenicity: Not likely to be carcinogenic.</li> <li>- Reproductive toxicity: Does not show specific reproductive or developmental toxicity.</li> <li>- STOT (single exposure): Can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. May cause dizziness, headache, nausea and weakness. Inhalation of the mist/vapour may cause chemical pneumonitis and pulmonary oedema (effects may be delayed).</li> <li>- STOT (repeated exposure): Repeated or prolonged contact with skin may cause dermatitis. Repeated vapour exposure may cause chronic respiratory inflammation and bronchitis. Risk of tooth erosion upon repeated or prolonged exposure to aerosols of this substance. Digestive disorders with heartburn and constipation have been reported at unspecified prolonged exposures.</li> <li>- Aspiration toxicity: No information available.</li> </ul> |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Acute**

|                            |                                                                                                                         |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Ingestion</b>           | Acute toxicity (Oral):<br>COMPONENT: Acetic acid (CAS No. 64-19-7):<br>- LD50, Rats: 3,310 mg/kg [Supplier's SDS].      |
| <b>Other</b>               | Acute toxicity (Dermal):<br>COMPONENT: Acetic acid (CAS No. 64-19-7):<br>- LD50, Rabbits: 1,130 mg/kg [Supplier's SDS]. |
| <b>Inhalation</b>          | Acute toxicity (Inhalation):<br>COMPONENT: Acetic acid (CAS No. 64-19-7):<br>- LC50, Rats: 11.4 mg/l (4 h).             |
| <b>Carcinogen Category</b> | None                                                                                                                    |

**12. ECOLOGICAL INFORMATION**

|                                  |                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ecotoxicity</b>               | Aquatic toxicity:<br>COMPONENT: Acetic acid (CAS No. 64-19-7):<br>- LC50, Fish: 88 mg/L (96 h) [Supplier's SDS].<br>- EC50, Crustacea: 65 mg/L (48 h) [Supplier's SDS]. |
| <b>Persistence/Degradability</b> | Low persistence in water/soil and air (Acetic acid).                                                                                                                    |
| <b>Mobility</b>                  | High mobility in soil (Acetic acid).                                                                                                                                    |
| <b>Environmental Fate</b>        | Prevent entry into drains and waterways.                                                                                                                                |
| <b>Bioaccumulation Potential</b> | Low bioaccumulative potential (Acetic acid).                                                                                                                            |
| <b>Environmental Impact</b>      | No Data Available                                                                                                                                                       |

**13. DISPOSAL CONSIDERATIONS**

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Information</b>               | Dispose of contents/container in accordance with local/regional/national regulations. Recycle wherever possible or treat and neutralise at an approved treatment plant; followed by burial in a landfill specifically licensed to accept chemical and/or pharmaceutical wastes or incineration in a licensed apparatus.                                                                                                                                                           |
| <b>Special Precautions for Land Fill</b> | Containers may still present a chemical hazard/danger when empty. Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers to prevent re-use, and bury at an authorised landfill. Observe all label safeguards until containers are cleaned and destroyed. |

**14. TRANSPORT INFORMATION****Land Transport (Australia)**

ADG Code

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by mass |
| <b>Class</b>                | 8 Corrosive Substances                            |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                               |
| <b>EPG</b>                  | 19 Liquids - Flammable , Toxic And/Or Corrosive   |
| <b>UN Number</b>            | 2789                                              |
| <b>Hazchem</b>              | •2P                                               |
| <b>Pack Group</b>           | II                                                |
| <b>Special Provision</b>    | No Data Available                                 |

**Land Transport (Malaysia)**

ADR Code

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by mass |
| <b>Class</b>                | 8 Corrosive Substances                            |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                               |
| <b>EPG</b>                  | 19 Liquids - Flammable , Toxic And/Or Corrosive   |
| <b>UN Number</b>            | 2789                                              |
| <b>Hazchem</b>              | 2P                                                |
| <b>Pack Group</b>           | II                                                |
| <b>Special Provision</b>    | No Data Available                                 |

**Land Transport (New Zealand)**

NZS5433

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by mass |
| <b>Class</b>                | 8 Corrosive Substances                            |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                               |
| <b>EPG</b>                  | 19 Liquids - Flammable , Toxic And/Or Corrosive   |
| <b>UN Number</b>            | 2789                                              |
| <b>Hazchem</b>              | 2P                                                |
| <b>Pack Group</b>           | II                                                |
| <b>Special Provision</b>    | No Data Available                                 |

**Land Transport (Papua New Guinea)**

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by mass |
| <b>Class</b>                | 8 Corrosive Substances                            |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                               |
| <b>EPG</b>                  | 19 Liquids - Flammable , Toxic And/Or Corrosive   |
| <b>UN Number</b>            | 2789                                              |
| <b>Hazchem</b>              | •2P                                               |
| <b>Pack Group</b>           | II                                                |
| <b>Special Provision</b>    | No Data Available                                 |

**Land Transport (United States of America)**

US DOT

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by mass |
| <b>Class</b>                | 8 Corrosive Substances                            |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                               |
| <b>ERG</b>                  | 132 Flammable Liquids - Corrosive                 |
| <b>UN Number</b>            | 2789                                              |
| <b>Hazchem</b>              | 2P                                                |
| <b>Pack Group</b>           | II                                                |
| <b>Special Provision</b>    | No Data Available                                 |

**Sea Transport**

IMDG Code

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by mass |
| <b>Class</b>                | 8 Corrosive Substances                            |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                               |

|                          |                   |
|--------------------------|-------------------|
| <b>UN Number</b>         | 2789              |
| <b>Hazchem</b>           | 2P                |
| <b>Pack Group</b>        | II                |
| <b>Special Provision</b> | No Data Available |
| <b>EMS</b>               | F-E, S-C          |
| <b>Marine Pollutant</b>  | No                |

**Air Transport**

IATA DGR

|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| <b>Proper Shipping Name</b> | ACETIC ACID SOLUTION, more than 80% acid, by weight |
| <b>Class</b>                | 8 Corrosive Substances                              |
| <b>Subsidiary Risk(s)</b>   | 3 Flammable Liquids                                 |
| <b>UN Number</b>            | 2789                                                |
| <b>Hazchem</b>              | 2P                                                  |
| <b>Pack Group</b>           | II                                                  |
| <b>Special Provision</b>    | No Data Available                                   |

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

|                                       |                                                                                                                                 |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Dangerous Goods Classification</b> | Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

**15. REGULATORY INFORMATION**

|                                |                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>General Information</b>     | ACETIC ACID (excluding its salts and derivatives) and preparations containing more than 80 per cent of acetic acid. |
| <b>Poisons Schedule (Aust)</b> | Schedule 6                                                                                                          |

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

|                      |                      |
|----------------------|----------------------|
| <b>Approval Code</b> | HSR000975 (Reissued) |
|----------------------|----------------------|

**National/Regional Inventories**

|                                |                   |
|--------------------------------|-------------------|
| <b>Australia (AIIIC)</b>       | Listed            |
| <b>Canada (DSL)</b>            | Listed            |
| <b>Canada (NDSL)</b>           | Not Listed        |
| <b>China (IECSC)</b>           | Listed            |
| <b>Europe (EINECS)</b>         | 200-580-7         |
| <b>Europe (REACH)</b>          | 01-2119475328-30- |
| <b>Japan (ENCS/METI)</b>       | 2-688             |
| <b>Korea (KECI)</b>            | KE-00013          |
| <b>Malaysia (EHS Register)</b> | Listed            |

|                                                |                |
|------------------------------------------------|----------------|
| New Zealand (NZIoC)                            | Listed         |
| Philippines (PICCS)                            | Listed         |
| Switzerland (Giftliste 1)                      | Not Determined |
| Switzerland (Inventory of Notified Substances) | Not Determined |
| Taiwan (NCSR)                                  | Listed         |
| USA (TSCA)                                     | Listed         |

## 16. OTHER INFORMATION

### Related Product Codes

ACACID0025, ACACID0026, ACACID0080, ACACID0090, ACACID0190, ACACID0800, ACACID0810, ACACID1034, ACACID1035, ACACID1036, ACACID1037, ACACID1040, ACACID1041, ACACID1500, ACACID1727, ACACID1806, ACACID1807, ACACID1813, ACACID1814, ACACID1815, ACACID1866, ACACID1867, ACACID1868, ACACID1869, ACACID1870, ACACID1871, ACACID1872, ACACID1873, ACACID1874, ACACID1883, ACACID1885, ACACID1886, ACACID1887, ACACID1888, ACACID1889, ACACID1890, ACACID1891, ACACID1892, ACACID1893, ACACID1894, ACACID1895, ACACID1898, ACACID1899, ACACID1900, ACACID1908, ACACID1909, ACACID1913, ACACID1914, ACACID1917, ACACID1919, ACACID1922, ACACID1925, ACACID1926, ACACID1930, ACACID1931, ACACID1938, ACACID1960, ACACID1961, ACACID1962, ACACID3400, ACACID3401, ACACID3402, ACACID3403, ACACID3404, ACACID3405, ACACID3406, ACACID3407, ACACID3408, ACACID3409, ACACID3410, ACACID3411, ACACID4800, ACACID6000, ACACID6001, ACACID7900, ACACID7901, ACACID7902, ACACID8001, ACACID8002, ACACID8050, ACACID8103, ACACID8200, ACACID8201, ACACID8250, ACACID8300, ACACID8400, ACACID8500, ACACID8510, ACACID8511, ACACID8600, ACACID8601, ACACID8602, ACACID8700, ACACID9010, ACACID9015, ACACID9016, ACACID9500, ACACID9600, ACACID9601, ACACID9800, ACACID9900

### Revision

4

### Revision Date

14/02/2023

### Key/Legend

< Less Than

> Greater Than

**AICS** Australian Inventory of Chemical Substances

**atm** Atmosphere

**CAS** Chemical Abstracts Service (Registry Number)

**cm<sup>2</sup>** Square Centimetres

**CO<sub>2</sub>** Carbon Dioxide

**COD** Chemical Oxygen Demand

**deg C (°C)** Degrees Celcius

**EPA (New Zealand)** Environmental Protection Authority of New Zealand

**deg F (°F)** Degrees Fahrenheit

**g** Grams

**g/cm<sup>3</sup>** Grams per Cubic Centimetre

**g/l** Grams per Litre

**HSNO** Hazardous Substance and New Organism

**IDLH** Immediately Dangerous to Life and Health

**immiscible** Liquids are insoluble in each other.

**inHg** Inch of Mercury

**inH<sub>2</sub>O** Inch of Water

**K** Kelvin

**kg** Kilogram

**kg/m<sup>3</sup>** Kilograms per Cubic Metre

**lb** Pound

**LC<sub>50</sub>** LC stands for lethal concentration. LC<sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

**LD<sub>50</sub>** LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

**ltr** or **L** Litre

**m<sup>3</sup>** Cubic Metre

**mbar** Millibar

**mg** Milligram

**mg/24H** Milligrams per 24 Hours

**mg/kg** Milligrams per Kilogram

**mg/m<sup>3</sup>** Milligrams per Cubic Metre

**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

**mm** Millimetre

**mmH<sub>2</sub>O** Millimetres of Water  
**mPa.s** Millipascals per Second  
**N/A** Not Applicable  
**NIOSH** National Institute for Occupational Safety and Health  
**NOHSC** National Occupational Health and Safety Commission  
**OECD** Organisation for Economic Co-operation and Development  
**Oz** Ounce  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight