

# Safety Data Sheet

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## **1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Company Name: : ECP Limited Address: : PO Box 34125, Birkenhead, Auckland 0746 Telephone: : +64 9 480 4386 Facsimile: Emergency phone number:

: +64 9 480 4385

: 0800 243 622 (24 hours)

| Product | Acetic A  | cid, Glacial |             | Code | V193            |
|---------|-----------|--------------|-------------|------|-----------------|
| CAS#    | HSNO#     | UN #         | DG Class/es | I    | Packing group # |
| 64-19-7 | HSR000975 | 2789         | 8           |      | II              |

### Recommended use

: Laboratory Investigations

#### 2: Hazards identification

### 2.1 GHS Classification

Flammable Liquids (Category C) Acute toxicity, Oral (Category E) Acute toxicity, Inhalation (Category C) Acute toxicity, Dermal (Category D) Skin corrosion (Category A) Serious eye damage (Category A) Skin sensitisation (Category B) Aquatic toxicity (Acute or Chronic) (Category D) 2.2 GHS Label elements, including precautionary statements



Pictogram

Hazard statement(s)

H226 Flammable liquid and vapour.

H303 May be harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H402 Harmful to aquatic life. Precautionary statement(s)

### Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards - none

HazardAustralia:ClassificationClassified as Hazardous according to criteria of National Occupational Health &<br/>Safety Commission, Australia (NOHSC).<br/>Classified as Dangerous Goods according to the Australian Code for the Transport of<br/>Dangerous Goods by Road and Rail.

New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Classified as Dangerous Goods for transport according to the NZS 5433:1999 Transport of Dangerous Goods on Land. HSNO Classification:

3.1C - Substance that is a Flammable Liquid: Medium Hazard.

- 6.1D Substance that is acutely toxic.
- 6.9B Substance that is harmful to human target organs or systems.
- 8.1A Substance that is corrosive to metals.
- 8.2B Substance that is corrosive to dermal tissue.
- 8.3A Substance that is corrosive to ocular tissue.
- 9.1D Substance that is slightly harmful in the aquatic environment.
- 9.3C Substance that is harmful to terrestrial vertebrates.

### 3: Composition/information on ingredients

| Ingredients | Name        | CAS     | Proportion |
|-------------|-------------|---------|------------|
|             | Acetic Acid | 64-19-7 | 99-100 %   |

#### 4: First aid measures

| Inhalation           | Remove the source of contamination or move the victim to fresh air. Seek immediate medical attention.  |
|----------------------|--|
| Ingestion            | Do NOT induce vomiting. Wash out mouth with large amounts of water. Seek immediate medical attention.  |
| Skin                 | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Seek immediate medical attention.   |
| Еуе                  | If in eyes, hold eyelids apart and flush the eye continuously with running water.<br>Continue flushing until advised to stop by the Poisons Information Centre or a<br>doctor, or for at least 15 minutes. Seek immediate medical attention. |
| First Aid Facilities | Eye wash station, safety shower and normal washroom facilities.  |
| Advice to Doctor     | Treat symptomatically.   |
| Other Information    | For advice in an emergency, contact a Poisons Information Centre (Phone eg<br>Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor at once.  |

#### 5: Firefighting measures

| Suitable<br>Extinguishing<br>Media        | Extinguish fire with foam, dry chemical powder, carbon dioxide, water fog or water spray.   |
|---|---|
| Hazards from<br>Combustion<br>Products    | Combustion products include carbon monoxide and carbon dioxide.   |
| Specific Hazards                          | Flammable liquid. Vapour/air mixtures may ignite explosively. Vapours are heavier than air and may travel long distances to an ignition source and flash back. Heating can cause expansion or decomposition leading to violent rupture of containers.   |
| Hazchem Code                              | 2P  |
| Precautions in<br>connection with<br>Fire | Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) and full<br>protective clothing to prevent exposure to vapours, fumes, or products of<br>combustion. Water spray may be used to cool down heat-exposed containers. If<br>safe to do so, remove containers from path of fire. Do not allow run-off from fire<br>fighting to enter drains or water courses. |

#### 6: Accidental release measures

EmergencyWear appropriate personal protective equipment and clothing to prevent<br/>exposure. Evacuate all unnecessary personnel. Stop the leak if safe to do so.<br/>Increase ventilation. If possible, contain the spill. Collect the material and place<br/>into suitable labelled containers for subsequent recycling or disposal. If<br/>contamination of sewers or waterways occurs inform the local water authorities<br/>and EPA in accordance with local regulations. Dispose of waste according to<br/>applicable local and national regulations.

#### 7: Handling and storage

Precautions for Safe Corrosive liquid. Attacks skin and eyes. May produce severe burns. Wear suitableHandlingprotective clothing, gloves and eye/face protection when mixing and using. Use in<br/>designated areas with adequate ventilation. Avoid breathing in vapours, mist or<br/>fumes. Keep containers closed when not in use. Ensure a high level of personal<br/>hygiene is maintained when using this product, that is, always wash hands before<br/>eating, drinking, smoking, or using the toilet facilities.

Conditions for SafeStore in a cool, dry well-ventilated area away incompatible materials. KeepStoragecontainers tightly closed when not in use and securely sealed and protected<br/>against physical damage. Inspect regularly for deficiencies such as damage or leaks.

## 8: Exposure controls/personal protection

| National Exposure<br>Standards | No exposure standards have been established for the mixture by the Australian<br>National Occupational Health & Safety Commission (NOHSC) or the Occupational<br>Safety and Health Service (OSH) of the New Zealand Department of Labour.<br>The available exposure limits for the ingredients are listed below:  |
|--------------------------------|---|
|                                | Australian National Occupational Health And Safety Commission (NOHSC) Exposure<br>Standards:<br>Substance TWA STEL Notice<br>ppm mg/m <sup>3</sup> ppm mg/m <sup>3</sup><br>Acetic acid 10 25 15 37 -<br>New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure<br>Standards:<br>Substance TWA STEL Notice<br>ppm mg/m <sup>3</sup> ppm mg/m <sup>3</sup><br>Acetic acid 10 25 15 37 - |
| Biological Limit<br>Values     | No biological limit allocated.  |
| Other Exposure<br>Information  | TWA (Time Weighted Average): The average airborne concentration of a particular<br>substance when calculated over a normal eight-hour working day, for a five-day<br>week.<br>STEL (Short Term Exposure Limit): The average airborne concentration over a 15<br>minute period which should not be exceeded at any time during a normal eight-<br>hour workday.  |
| Engineering<br>Controls        | An effective ventilation system, such as a local exhaust ventilation system, drawing vapours, mists and fumes away from workers' breathing zone, should be used.  |
| Respiratory<br>Protection      | If engineering controls are not effective in controlling airborne exposure, then an<br>approved respirator should be used. Reference should be made to Australian<br>Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective<br>Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any<br>necessary changes for individual circumstances.                   |

| Eye Protection         | Safety glasses with side shields, goggles, or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications. |
|------------------------|--|
| Hand Protection        | Wear gloves of impervious material e.g. laminated film. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.   |
| <b>Body Protection</b> | Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist.   |

# 9: Physical and chemical properties

| Appearance<br>Melting Point       | Clear, colourless liquid, with a very strong, sharp vinegar odour.<br>16.6°C   |  |
|-----------------------------------|--|--|
| <b>Boiling Point</b>              | 118.1°C  |  |
| Solubility in Water               | Soluble  |  |
| Solubility in Organio<br>Solvents | c<br>Soluble in alcohol, glycerol and ether. Soluble in most organic solvents. |  |
| Specific Gravity                  | 1.051  |  |
| pH Value                          | 2.9 (0.1M aq. solution)  |  |
| Vapour Pressure                   | 1.5 kPa at 20°C  |  |
| Vapour Density<br>(Air=1)         | 2.1 (Air = 1)  |  |
| Evaporation Rate                  | 0.97, (n-Butyl acetate=1)  |  |
| Viscosity                         | 1.22 cP at 20°C  |  |
| Volatile Component 100%           |  |  |

| Flash Point                  | 39°C (Closed Cup) |
|------------------------------|-------------------|
| Flammability                 | Flammable liquid. |
| Auto-Ignition<br>Temperature | 463°C             |
| Flammable Limits -<br>Lower  | 5.3%              |
| Flammable Limits -<br>Upper  | 16.6 %            |

# 10: Stability and reactivity

| Chemical Stability          | Stable under normal conditions of storage and handling.   |
|-----------------------------|---|
| Incompatible<br>Materials   | Incompatible with most metals, may produce hydrogen. May react violently with amines, strong alkalis, and strong oxidising agents such as hydrogen peroxide, nitric acid, perchloric acid or chromium trioxide. |
| Hazardous<br>Decomposition  |   |
| Products                    | Carbon monoxide and carbon dioxide.   |
| Hazardous<br>Polymerization | Will not occur.   |

# 11: Toxicological information

| Toxicology<br>Information | LD50 (Oral, Rat): 3310 mg/kg<br>LD50 (Dermal, Rabbit): 1060 mg/kg<br>LCL0 (Inhalation, Rat): 16000 ppm/4h   |
|---------------------------|---|
| Inhalation                | Inhalation of vapour, mist or fumes can cause severe irritation and chemical burns to the respiratory tract. May cause bronchitis, pneumonia, and pulmonary oedema. |
| Ingestion                 | Ingestion of this product will cause burns to the mouth, throat, and stomach, resulting in extensive tissue damage and severe pain.                                 |

| Skin            | Corrosive to skin. Skin contact will cause redness, irritation, and severe burns with resultant tissue destruction. |
|-----------------|---|
| Еуе             | Corrosive to eyes. Eye contact will cause severe burns. It can cause permanent eye damage and blindness.            |
| Chronic Effects | Chronic exposure to liquid, vapour or mist may result in harmful corrosive effects to skin and respiratory system.  |

# 12: Ecological information

14: Transport Information Table

| Ecotoxicity                    | Not available   |
|--------------------------------|---|
| Persistence /<br>Degradability | Not available   |
| Mobility                       | Not available   |
| Bioaccumulative<br>Potential   | Not available   |
| Environment<br>Protection      | Do not allow product to enter drains, waterways, or sewers. |
| 13: Disposal considerations    |   |

**Disposal**The disposal of the spilled or waste material must be done in accordance with<br/>applicable local and national regulations.

| Transport   | Australia:  |
|-------------|---|
| Information | This material is a Class 8 Corrosive Substance with subsidiary Class 3 Flammable<br>Liquid according to the Australian Code for the Transport of Dangerous Goods by<br>Road and Rail.<br>This material is incompatible in a placard load with any of the following: |
|             | <ul> <li>Class 1, Explosives</li> <li>Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk</li> <li>Class 2.3, Toxic Gases</li> </ul>  |

- Class 4.2 Spontaneously Combustible Substances

- Class 4.3, Dangerous When Wet Substances
- Class 5.1, Oxidising Agents
- Class 5.2 Organic Peroxides

- Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids),

- Class 7, Radioactive Substances

and are incompatible with food and food packaging in any quantity.

Note 1: Cyanides must be segregated from Class 8 acids.

Note 2: Concentrated acids must be segregated from concentrated alkalis (Packing Group 1 & 2).

New Zealand

This material is classified as a Class 8 - Corrosives and subsidiary Class 3 -Flammable Liquids according to NZS 5433:1999 Transport of Dangerous Goods on Land.

This material must not be loaded in the same freight container or on the same vehicle with:

- (Class 1) Explosives
- (Class 2.1) Flammable gases
- (Class 2.3) Toxic gases
- (Class 4.2) Spontaneously combustible substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides
- (Class 7) Radioactive materials unless specifically exempted

And are incompatible with food and food packaging in any quantity.

Note 1: Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).

Note 2: Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- (Class 4.2) Spontaneously combustible substances

- (Class 4.3) Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- (Class 4.3) Dangerous when wet substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides

And are incompatible with food and food packaging in any quantity.

**U.N. Number** 2789

Proper Shipping Name

ACETIC ACID, GLACIAL

| DG Class         | 8               |
|------------------|-----------------|
| Sub.Risk         | 3               |
| Hazchem Code     | 2P              |
| Packaging Method | 3.8.8, RT1, RT7 |
| Packing Group    | II              |
| EPG Number       | 8B1             |
| IERG Number      | 19              |

| 15: Regulatory information                                    |   |  |
|---|---|--|
| Regulatory<br>Information                                     | Australia:<br>Classified as Hazardous according to criteria of National Occupational Health &<br>Safety Commission (NOHSC), Australia.<br>Classified as a Scheduled Poison (S6) according to the Standard for the Uniform<br>Scheduling of Drugs and Poisons (SUSDP). |  |
| Poisons Schedule  | S6  |  |
| National and or<br>International<br>Regulatory<br>Information | New Zealand:<br>Classified as Hazardous according to the New Zealand Hazardous Substances<br>(Minimum Degrees of Hazard) Regulations 2001.<br>ERMA Approval Code: HSR000975 (Acetic acid, >80% aqueous solution).   |  |
| Hazard Category   | Corrosive   |  |
| AICS (Australia)  | All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).   |  |

## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for

safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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