

Infosafe No™ 1CHF0 Issue Date : October 2018 RE-ISSUED by CHEMSUPP

Product Name **ACETONITRILE**

Classified as hazardous

1. Identification

GHS Product Identifier ACETONITRILE

Company Name CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)

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Recommended use of the chemical and restrictions on use Solvents in hydrocarbon-extract processes, especially for butadiene; specialty solvent; intermediate; catalyst; separation of fatty acids from vegetable oils; manufacturing of synthetic pharmaceuticals and laboratory reagent.

Other Names

| <u>Name</u> | <u>Product Code</u> |
|--|---------------------|
| ACETONITRILE AR | AA103 |
| Methyl cyanide, Cyanomethane, Ethyl nitrile, Ethanenitrile | |

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture Flammable Liquids: Category 2
Acute Toxicity - Dermal: Category 4
Eye Damage/Irritation: Category 1
Acute Toxicity - Inhalation: Category 4
Acute Toxicity - Oral: Category 4

Signal Word (s) DANGER

Hazard Statement (s) H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.
H332 Harmful if inhaled.

Pictogram (s) Flame, Corrosion, Exclamation mark



Precautionary statement – 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 fume/gas/mist/vapours/spray.

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Precautionary statement – Response

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
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 CENTRE or a doctor/physician.
P370+P378 In case of fire: Use dry chemical, CO2 or water spray for extinction.
P403+P235 Store in a well-ventilated place. Keep cool.

Precautionary statement – Storage

Precautionary statement – Disposal

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

3. Composition/information on ingredients

| Ingredients | Name | CAS | Proportion |
|-------------|--------------|---------|------------|
| | Acetonitrile | 75-05-8 | 100 % |

4. First-aid measures

Inhalation If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.

Ingestion Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Skin Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical advice if effects persist.

Eye contact Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.

First Aid Facilities Have a safety shower/eye-wash fountain readily available in the immediate work area.

Advice to Doctor Consult Poisons Information Centre.
Severe exposure should be treated as cyanide poisoning. Treat as cyanide poisoning. The oneself symptoms is generally delayed pending conversation to Cyanide, Nausea, Vomit, Headache, Dizziness, Rash, Cyanosis, Excitement, Depression, Drowsiness, Impaired Judgment, Lack of Coordination, Stupor and Death.

Other Information For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products Carbon monoxide, carbon dioxide, hydrogen cyanide, oxides of nitrogen.

Specific Methods Small fire: Use dry chemical, CO2 or water spray.
Large fire: Use water spray, fog or foam - Do NOT use water jets.
If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.

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| Specific hazards arising from the chemical | May be ignited by heat, sparks or flames. 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 spread along the ground and collect in low or confined areas (drains, basements, tanks). Many liquids are lighter than water. Containers may explode when heated. Fire may produce irritating, poisonous or corrosive gases. Vapours from run-off may create an explosion hazard. |
| Hazchem Code | •2YE |
| Precautions in connection with Fire | Wear SCBA and fully encapsulating, gas-tight suit when handling these substances. Structural firefighter's uniform is NOT effective for these materials. |

6. Accidental release measures

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| Spills & Disposal | Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 25m. All equipment in handling this product must be earthed. Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Vapour suppressing foam may be used to control vapours. Water spray may be used to knock down or divert vapours. Absorb spill with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL. |
| Personal Precautions | Evacuate the area of all non-essential personnel. Remove ignition sources. Avoid inhalation, contact with skin, eyes and clothing. Ventilate contaminated area thoroughly. |
| Personal Protection | Wear protective clothing specified for normal operations (see Section 8) |
| Clean-up Methods - Small Spillages | Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum. |
| Environmental Precautions | Prevent from entering into drains, ditches, rivers or the sea. |

7. Handling and storage

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| Conditions for safe storage, including any incompatibilities | Store in a cool, dry, well-ventilated area, out of direct sunlight. Store away from heat and ignition sources. Keep containers closed at all time. Store away from incompatible materials such as oxidizing materials, strong acids, water or products containing water. |
| Storage Regulations | Refer Australian Standard AS 1940-2017 'The storage and handling of flammable and combustible liquids'. |

8. Exposure controls/personal protection

| Occupational exposure limit values | <u>Name</u> | STEL | | TWA | | <u>Footnote</u> |
|------------------------------------|--|--------------|------------|--------------|------------|-----------------|
| | | <u>mg/m3</u> | <u>ppm</u> | <u>mg/m3</u> | <u>ppm</u> | |
| | Acetonitrile | 101 | 60 | 67 | 40 | |
| Other Exposure Information | <p>These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.</p> <p>STEL: 101 mg/m3 (60 ppm) - Acetonitrile - Safe Work Australia.</p> <p>A time weighted average (TWA) has been established for Acetonitrile (Safe Work Australia) of 67 mg/m3, (40 ppm). The corresponding STEL level is 101 mg/m3, (60 ppm). The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.</p> <p>Note: Absorption through the skin may be a significant source of exposure.</p> | | | | | |

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| Appropriate engineering controls | In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment. Provide sufficient ventilation to ensure that the working environment is below the TWA (time weighted average). Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flame proof exhaust ventilation system is required. Refer to AS 1940-The storage and handling of flammable and combustible liquids and AS 2430-Explosive gas atmospheres for further information concerning ventilation requirements. |
| Respiratory Protection | Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. |
| Eye Protection | The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. |
| Hand Protection | Chemically resistant gloves. Hand protection should comply with AS 2161 Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves). |
| Personal Protective Equipment | Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards. |
| Footwear | Foot protection should comply with AS 2210 Safety Footwear. |
| Body Protection | CHEMICAL RESISTANCE FOR PROTECTIVE CLOTHING: VERY GOOD: Butyl rubber GOOD: Chlorinated polyethylene, polyvinyl alcohol, Viton, butyl rubber/neoprene, Teflon, neoprene+natural rubber, Saranax, Silvershield, Viton/chlorobutyl rubber. FAIR/POOR: Viton/neoprene, natural rubber, neoprene, nitrile, polyethylene, polyvinyl chloride. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals. |
| Hygiene Measures | Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. |

9. Physical and chemical properties

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| Form | Liquid |
| Appearance | Colourless limpid liquid. |
| Odour | Oromatic odour. |
| Melting Point | -46 °C |
| Boiling Point | 81.6 °C |
| Solubility in Water | Soluble |
| Solubility in Organic Solvents | Very soluble in alcohol, ether, acetone, chloroform, carbon tetrachloride, ethylene chloride. |
| Specific Gravity | 0.787 (water = 1) |
| Vapour Pressure | 97 hPa at 20°C |
| Vapour Density (Air=1) | 1.4 (air = 1) |
| Evaporation Rate | 5.79 (butyl acetate = 1) |

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| Odour Threshold | 42 ppm - (detection); 500 ppm - (irritation) |
| Flash Point | 5.6 °C (open cup) 12.8 °C (closed cup) |
| Flammability | HIGHLY FLAMMABLE. Keep away from heat, sparks or naked flames. Use flameproof equipment and fittings to prevent flammability risk. Electrically link and ground metal containers for transfer of the product to prevent accumulation of static electricity. Ensure adequate ventilation to prevent an explosive vapour-air mixture. Vapours will travel considerable distances to sources of ignition. |
| Auto-Ignition Temperature | 525 °C |
| Flammable Limits - Lower | 3.0 vol% |
| Flammable Limits - Upper | 16.0 vol% |
| Molecular Weight | 41.05 |
| Other Information | Will decompose on heating. Reacts with water or steam to form toxic and flammable vapours. |

10. Stability and reactivity

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| Chemical Stability | Stable under normal conditions. |
| Incompatible Materials | Oxidizing agents, acids, reducing agents and alkali metals. |
| Hazardous Decomposition Products | Oxides of carbon and nitrogen, hydrogen cyanide. |
| Hazardous Polymerization | Will not occur. |

11. Toxicological Information

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| Ingestion | Harmful if swallowed. |
| Inhalation | Harmful by inhalation. Vapour or mist can cause irritation of the nose and throat at high concentrations. Symptoms include weakness, headache, giddiness, dizziness, confusion, anxiety, nausea and vomiting. In severe cases, breathing is rapid, then becomes slow and gasping. The victim may feel an irregular heart beat and tightness in the chest. The skin appears bright pink or red. Fluid may fill the lungs and interfere with breathing. Unconsciousness, convulsions and death can follow depending on the degree of exposure. |
| Skin | Harmful in contact with the skin. May causes mild irritation. |
| Eye | Causes serious eye damage. |
| Respiratory sensitisation | Not classified based on available information. |
| Skin Sensitisation | Not classified based on available information. |
| Germ cell mutagenicity | Not classified based on available information. |
| Carcinogenicity | Not classified based on available information. |
| Reproductive Toxicity | Not classified based on available information. |
| STOT-single exposure | Not classified based on available information. |
| STOT-repeated exposure | Not classified based on available information. |
| Serious eye damage/irritation | Eye Damage/Irritation: Category 1 H318 Causes serious eye damage. |

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12. Ecological information

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| Ecotoxicity | Biological effects: Toxic effect on fish and plankton. Risk of formation of toxic and explosive mixtures with air above water surface. Hazard for drinking water supplies. |
| Bioaccumulative Potential | Distribution; log P(oct) -0.34 (experimental). No Bioaccumulation is to be expected (log P o/w <1) |
| Environmental Protection | Do not allow product to enter drains, waterways or sewers. |

13. Disposal considerations

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| Disposal Considerations | Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations. |
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14. Transport information

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| Transport Information | Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following: Class 1, Class 2.1, if both the Class 3 and Class 2.1 dangerous goods are in bulk, Class 2.3, Class 4.2, Class 5, Class 6, if the Class 3 dangerous goods are nitromethane, Class 7. |
| U.N. Number | 1648 |
| UN proper shipping name | ACETONITRILE |
| Transport hazard class(es) | 3 |
| Hazchem Code | •2YE |
| Packing Group | II |
| EPG Number | 3A3 |
| IERG Number | 17 |

15. Regulatory information

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| Regulatory Information | Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. |
| Poisons Schedule | Not Scheduled |

16. Other Information

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| Literature References | 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.' Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'. |
| Contact Person/Point | Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that |

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Empirical Formula & Structural Formula CH3 CN

...End Of MSDS...

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