

Safety Data Sheet **ACETONE**

SDS no. NCYZ4MYZ • Version 1.0 • Date of issue: 2024-12-17

SECTION 1: Identification

GHS Product identifier

Product name ACETONE

Other means of identification

Product Product Code

ACETONE LR AL008

ACETONE AR AA008

ACETONE TG AT008

Propanone, 2-Propanone, Dimethyl ketone, Ketone propane, Methyl ketone

Recommended use of the chemical and restrictions on use

Solvent used in the processing of resin, lacquer, varnish, wax, adhesive, ink, paint and plastic, chemicals (methyl isobutyl ketone, methyl isobutyl carbinol, methyl methacrylate, bisphenol-A), solvent for potassium iodide and permanganate, delusterant for cellulose acetate fibres, photography, specification testing of vulcanised rubber products, cleaning and drying of precision equipment, analytical reagent and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

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- Serious eye damage/eye irritation, Cat. 2A
- Specific target organ toxicity following single exposure, Cat. 3
- Flammable liquids, Cat. 2

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H319
H336
H225

Causes serious eye irritation
May cause drowsiness or dizziness
Highly flammable liquid and vapor

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233

Keep container tightly closed.

P240

Ground and bond container and receiving equipment.

P241

Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P242

Use non-sparking tools.

P243

Take action to prevent static discharges.

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P264

Wash hands thoroughly after handling.

P271

Use only outdoors or in a well-ventilated area.

P280

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

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340

IF INHALED: Remove person to fresh air and keep 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.

P312

Call a POISON CENTER/doctor/physician if you feel unwell.

P337+P313

If eye irritation persists: Get medical advice/attention.

P370+P378

In case of fire: Use agents recommended in Section 5 of SDS for extinction

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.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 58.08

Derived by the oxidation of cumene, dehydrogenation or oxidation of isopropyl alcohol with metallic catalyst, vapour phase oxidation of butane or a by-product of synthetic glycerol production.

Components

Component	CAS no.	Concentration
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Acetone (EC no.: 200-662-2; Index no.: 606-001-00-8) (weight)	67-64-1	98 - <= 100 %
CLASSIFICATIONS: Flammable liquids, Cat. 2; Specific target organ toxicity following single exposure, Cat. 3; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H225 - Highly flammable liquid and vapor; H319 - Causes serious eye irritation; H336 - May cause drowsiness or dizziness.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of 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.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Caution: Use of water spray when fighting fire may be inefficient.

Small fire: Use foam, dry chemical, CO2 or water spray.

Large fire: Use foam or water spray - Do not use water jets.

If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside the containers.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire includes oxides of carbon.

HIGHLY FLAMMABLE: These products have a low flash point - Will be easily ignited by heat, sparks or flames at ambient temperatures.

Vapours will form explosive mixtures with air. Vapours will travel to source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Many liquids are lighter than water.

Many vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks). Vapours from run-off may create an explosion hazard.

Special protective actions for fire-fighters

SCBA and structural firefighter's uniform may provide limited protection. Fully-encapsulating, gas-tight suits should be worn for maximum protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take precautionary measures against static discharge. Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m - All equipment used in handling the product must be earthed.

Do not touch or walk through spilled material.

Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas.

Vapour-suppressing foam may be used to control 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. Water spray may be used to knock down or divert vapour clouds.

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

Take precautionary measures against static discharges. All electrical equipment must be flameproofed. Avoid breathing vapour, spray or mists. Avoid prolonged or repeated contact with skin and eyes .

Conditions for safe storage, including any incompatibilities

Store in a cool place. Store in well ventilated area. Store away from sources of heat or ignition. Store away from oxidising agents and strong acids and bases. Keep containers securely sealed.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 67-64-1

Acetone

AU/SWA (Australia): 1000 ppm; 2375 mg/m³ STEL inhalation; 500 ppm; 1185 mg/m³ TWA inhalation

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Recommendation: Flame retardant protective clothing.

Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.
Recommendation: Combined particulate/gas respirator.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Colourless liquid.
Color	No data available.
Odor	Characteristic, sweetish odour.
Odor threshold	No data available.
Melting point/freezing point	-94 - 95 °C
Boiling point or initial boiling point and boiling range	56 - 56.5 °C
Flammability	Flammable liquid.
Lower and upper explosion limit/flammability limit	Flammable Limits - Lower: 2.90% Flammable Limits - Upper: 12.80%
Flash point	-20 °C (CC)
Explosive properties	No data available.
Auto-ignition temperature	465 °C
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	5-6 (395 g/l, H ₂ O, 20 °C)
Kinematic viscosity	Viscosity: 0.303 cP @ 25 °C
Solubility	Solubility in Water: Miscible with water. Solubility in Organic Solvents: Miscible with alcohol, ether, chloroform, DMF and most oils.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	180 mmHg (20 °C)
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 0.792 @ 20 °C
Relative vapor density	2
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Refractive index: 1.3591 @ 20 °C
Dipole moment: 2.7 Debye @ 20 °C
Dielectric constant: 20.7 @ 25 °C
Saturation concentration: 533 g/m³ @ 20 °C
Heat of evaporation: 521 kJ/kg @ 56 °C

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Risk of ignition. Vapours may form explosive mixtures with air

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline surfaces. Decomposes violently in contact with nitric/sulfuric acid mixtures. Can react violently with oxidising agents.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

Incompatible materials

Oxidising agents (ie. CrO₃, peroxi compounds, nitric acid, nitrating acid), reducing agents, alkali hydroxides, halogens, chloroform, chlorine compounds halogenated hydrocarbons/alkali hydroxides, halogen-halogen compounds, halogen oxides, alkali metals, nitrosyl compounds, metals, ethanolamine, nitric/sulfuric acid mixtures, strong acids and bases and various plastics and rubber.

Hazardous decomposition products

May librate toxic fumes in fire includes oxides of carbon.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 5800 mg/kg.

Ingestion: Swallowing small amounts is not likely to produce harmful effects. Digestion in large quantities may lead to gastrointestinal complaints, headaches, salivation, nausea, vomiting, dizziness, narcosis and coma.

Inhalation: Inhalation of vapours concentrations causes respiratory tract and mucosal membrane irritation, dryness of the mouth and throat, dizziness, headaches, drowsiness, salivation, depression, nausea, vomiting and in severe cases leading to a coma.

Skin corrosion/irritation

Acute Toxicity - Dermal: LD50 (rabbit): 20000 mg/kg.

Contact with skin may result in irritation. Will have a degreasing action on the skin.

Serious eye damage/irritation

Risk of corneal clouding! Vapours are irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain.

Respiratory or skin sensitization

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.

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Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Chronic Effects: Repeated or prolonged skin contact can cause skin dryness, cracking and chronic dermatitis. Due to its low toxicity and high volatility, acetone is unlikely to be absorbed through the skin in harmful amounts unless evaporation is prevented. May damage the liver and kidneys.

SECTION 12: Ecological information

Toxicity

Environmental Protection: Avoid contaminating waterways. Harmful to aquatic life.

Acute Toxicity - Fish: LC50 (*L.macrochirus*): 8300 mg/l/96h.

Acute Toxicity - Daphnia: EC50 (*Daphnia magna*): 12600-12700 mg/l/48h.

Acute Toxicity - Algae: Maximum permissible toxic concentration:

IC5 (*Sc.quadricauda*): 7500 mg/l/8 d.

Acute Toxicity - Bacteria: Maximum permissible toxic concentration:

EC5 (*M.aeruginosa*): 530 mg/l/8 d.

EC5 (*Ps.putida*): 1700 mg/l/16 d.

EC5 (*E.Sulcatum*): 28 mg/l/72 h.

Persistence and degradability

Readily biodegradable, Biodegradation: 91%/28d.

Bioaccumulative potential

Does not bioaccumulate.

Other adverse effects

Environmental Fate: Behaviour in environmental compartments: Distribution: log p(o/w): -0.24 (experimental)

No bioaccumulation is to be expected (log P(o/w) < 1).

Bioconcentration factor: 0.69.

Further ecologic data - Degradability:

BOD5: 1.85 g/g;

COD: 2.07 g/g;

TOD: 2.20 g/g.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Sewage disposal

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Does not bioaccumulate.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1090

Class: 3

Packing Group: II

Proper Shipping Name: ACETONE

Hazchem emergency action code (EAC)

•2YE

IMDG

UN Number: 1090

Class: 3

Packing Group: II

EMS Number:

Proper Shipping Name: ACETONE

IATA

UN Number: 1090

Class: 3

Packing Group: II

Proper Shipping Name: ACETONE

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: S5

SECTION 16: Other information

Further information/disclaimer

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.

Preparation information

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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', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)