

Safety Data Sheet **ETHANOL Undenatured**

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

SECTION 1: Identification

GHS Product identifier

Product name ETHANOL Undenatured

Other means of identification

Product	Product Code
ETHANOL Undenatured 96% LR	EL042
ETHANOL Undenatured 100% LR	EL043
ETHANOL Undenatured 100% AR	EA043
Ethyl alcohol	
ETHANOL Undenatured 70% LR	EP061
ETHANOL Undenatured 96% AR	EA042
ETHANOL Undenatured 100% BP	EP043
ETHANOL 95 SG Undenatured 95%	EP082
ETHANOL Undenatured 70%w/w LR	EL141
ETHANOL Undenatured 60% v/v LR	EL146
ETHANOL Undenatured 45% v/v LR	EL147
ETHANOL Undenatured 25% v/v LR	EL148
ETHANOL 80% v/v LR	EL156
ETHANOL Undenatured 70% AR	EA061
ETHANOL Undenatured 100% AR	EA171
Ethanol Undenatured 96% RG	ER042

Recommended use of the chemical and restrictions on use

Solvent for resins, fats, fatty acids, oils, hydrocarbons; extraction medium; manufacture of acetaldehyde, acetic acid, ethylene, butadiene, 2-ethyl hexanol, dyes, pharmaceuticals, elastomers, detergents, cleaning preparations, surface coatings, cosmetics, explosives, antifreeze, beverages, antiseptic, gasohol, yeast-growth medium, octane booster in gasoline 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

Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following:

Safety Data Sheet

ETHANOL Undenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

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.

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

- Serious eye damage/eye irritation, Cat. 2A
- Flammable liquids, Cat. 2

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H225
H319

Highly flammable liquid and vapor
Causes serious eye irritation

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.

P264

Wash hands thoroughly after handling.

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].

P305+P351+P338

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

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+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	46.08
-------------------------	-------

Safety Data Sheet

ETHANOL Undenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

Component	Identification	Weight %	Classifications
Water	CAS no.: 7732-18-5 EC no.: 231-791-2	75 % (volume)	CLASSIFICATIONS: No data available. HAZARDS: No data available.
Ethanol	CAS no.: 64-17-5 EC no.: 200-578-6 Index no.: 603-002-00-5	25 - 100 % (volume)	CLASSIFICATIONS: Flammable liquids, Cat. 2. HAZARDS: H225 - Highly flammable liquid and vapor.

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. Get medical aid if cough or other symptoms appear.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.
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, fog 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.

Specific hazards arising from the chemical

Hazards from Combustion Products: 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

Safety Data Sheet

ETHANOL Undenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

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

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection 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

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 64-17-5

Ethanol

AU/SWA (Australia): 1000 ppm; 1880 mg/m³ TWA inhalation [Ethyl alcohol]

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.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

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.

Safety Data Sheet

ETHANOL Undenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Colourless, transparent, volatile liquid.
Color	No data available.
Odor	Ethereal vinous odour.
Odor threshold	No data available.
Melting point/freezing point	-117.3 °C - 100% -114 °C - 95%
Boiling point or initial boiling point and boiling range	78.3 °C - 100% 78 °C - 95%
Flammability	No data available.
Lower and upper explosion limit/flammability limit	Flammable Limits - Lower: 3.5% - 100% Flammable Limits - Upper: 19% - 100%
Flash point	9 °C - 100% 12.7 °C - 95%
Explosive properties	No data available.
Auto-ignition temperature	422 °C - 95%
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Miscible. Solubility in Organic Solvents: Miscible with methanol, ether, chloroform and acetone.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 0.7893 - 100% 0.8042 - 95% 0.8676 - 70%
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Taste: Pungent taste.

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

Vapours may form explosive mixture with air.

Hazardous Polymerization: Will not occur.

Safety Data Sheet

ETHANOL Undenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

Conditions to avoid

Heat, sparks, flame and build-up of static electricity.

Incompatible materials

Oxidising agents, peroxides, acids, acid chlorides, acid anhydrides, alkali metals and ammonia.

Hazardous decomposition products

May liberate toxic fumes in fire producing carbon monoxide and or carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 10,470 mg/kg

Acute Toxicity - Inhalation: LC50 (rat): 124.7 mg/L 4 hour

Ingestion: May cause nausea, vomiting, headache, dizziness, gastric irritation and CNS depression.

Inhalation: Irritating to the mucous membranes and respiratory tract. Risk of absorption. May cause headaches, dizziness, nausea and possible CNS effects.

Skin corrosion/irritation

May cause irritation. Will have a degreasing action on the skin.

Serious eye damage/irritation

May cause irritation and watering. High concentrations of vapours may cause irritation.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Ethanol [61-17-5] in alcoholic beverages are evaluated in the IARC Monographs (Vol. 96) as Group 1: Carcinogenic to humans, (based on effects of drinking alcoholic beverages).

Safe Work Australia does not classify ethanol as a carcinogen.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Health Hazard: Though it is rapidly oxidized in the body and is therefore non-cumulative, ingestion of even moderate amounts causes lowering of inhibitions, often succeeded by dizziness, headache, or nausea. Larger intake causes loss of motor nerve control, shallow respiration, and in extreme cases unconsciousness and even death. Degree of intoxication is determined by concentration of alcohol in the brain. Of primary importance is the fact that intake of moderate amounts together with barbiturates or similar drugs is extremely dangerous and may even be fatal.

Safety Data Sheet

ETHANOL Udenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

Chronic Effects: Repeated or prolonged skin contact may cause chronic dermatitis. May cause liver and kidney disorders.

SECTION 12: Ecological information

Toxicity

Short Summary of Assessment of Environmental Impact: No ecological problems are to be expected when the product is handled and used with due care and attention.

Persistence and degradability

Degree of elimination: 94%

Bioaccumulative potential

Low probability of bioaccumulation ($\log P(o/w) < 1$).

Further ecologic data:

BOD₅: 0.93 - 1.67 g/g (anhydrous substance);

COD: 1.99 g/g (anhydrous substance);

ThOD: 2.10 g/g (anhydrous substance).

Mobility in soil

$\log P(o/w)$: -0.32.

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

Low probability of bioaccumulation ($\log P(o/w) < 1$).

Further ecologic data:

BOD₅: 0.93 - 1.67 g/g (anhydrous substance);

COD: 1.99 g/g (anhydrous substance);

ThOD: 2.10 g/g (anhydrous substance).

Other disposal recommendations

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

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1170

Class: 3

Packing Group: II

Proper Shipping Name: ETHANOL (ETHYL ALCOHOL)

Hazchem emergency action code (EAC)

2[Y]E

IMDG

UN Number: 1170

Class: 3

Packing Group: II

EMS Number:

Proper Shipping Name: ETHANOL (ETHYL ALCOHOL)

IATA

Safety Data Sheet

ETHANOL Undenatured

SDS no. 427254U0 • Version 1.0 • Date of issue: 2025-10-07

UN Number: 1170
Class: 3
Packing Group: II
Proper Shipping Name: ETHANOL (ETHYL ALCOHOL)

SECTION 15: Regulatory information

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

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.

If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

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

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 may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

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)