

1. IDENTIFICATION

Product Name Ethyl acetate Other Names Acetic ether Uses Industrial solvent. No Data Available **Chemical Family**

Chemical Formula C4H8O2

Chemical Name Acetic acid, ethyl ester **Product Description** No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation Location Telephone Redox Ltd 2 Swettenham Road +61-2-97333000

> Minto NSW 2566 Australia

Redox Ltd 11 Mayo Road +64-9-2506222

> Wiri Auckland 2104 New Zealand

3960 Paramount Boulevard Redox Inc. +1-424-675-3200

Suite 107

Lakewood CA 90712

USA

Redox Chemicals Sdn Bhd Level 2, No. 8, Jalan Sapir 33/7 +60-3-5614-2111

Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

Emergency Contact Details

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

Organisation Location Telephone Poisons Information Centre Westmead NSW 1800-251525 131126 Chemcall Australia 1800-127406 +64-4-9179888 +64-4-9179888 Chemcall Malaysia Chemcall New Zealand 0800-243622 +64-4-9179888 National Poisons Centre New Zealand 0800-764766 CHEMTREC USA & Canada

1-800-424-9300 CN723420

+1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Not Scheduled



Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Flammable Liquids - Category 2

Serious Eye Damage/Irritation - Category 2A

Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms





Signal Word Danger

Hazard Statements AUH066 Repeated exposure may cause skin dryness or cracking

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

 Precautionary Statements
 Prevention
 P261
 Avoid breathing mist/vapours/spray.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting and all other equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P235 Keep cool.

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

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

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

Response P370 + P378 In case of fire: Use carbon dioxide (CO2), dry chemical, alcohol resistant foam or

water spray for extinction.

P337 + P313 If eye irritation persists: Get medical attention.

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.

P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER or doctor if you feel unwell.

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

P405 Store locked up.

Disposal P501 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)

Dangerous Goods ClassificationDangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by

Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Acetic acid, ethyl ester	C4H8O2	141-78-6	>=99.5 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. Get medical advice/attention. Never give anything by

mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower eyelids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If

eye irritation persists, get medical advice/attention.

Skin IF ON SKIN (or hair): Remove contaminated clothing and shoes immediately. Wash skin and hair with plenty of soap and

> running water/shower. In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before

reuse.

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

Advice to Doctor Keep victim calm and warm - Obtain immediate medical care. Ensure that attending medical personnel are aware of the

identity and nature of product(s) involved, and take precautions to protect themselves.

Medical Conditions Aggravated by Repeated exposure may cause skin dryness or cracking.

Exposure

5. FIRE FIGHTING MEASURES

General Measures If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

Avoid getting water inside containers.

HIGHLY FLAMMABLE LIQUID & VAPOUR: Low flashpoint – Will be easily ignited by heat, sparks or flame. **Flammability Conditions**

Extinguishing Media Use dry chemical, Carbon dioxide (CO2), 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, normal foam can be used.

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

Fire and Explosion Hazard Risk of violent reaction or explosion! Vapours will 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.

Hazardous Products of

Combustion

Fire will produce irritating, toxic and/or corrosive gases, including Carbon oxides.

Special Fire Fighting Instructions Contain runoff from fire control or dilution water - Runoff may pollute waterways; Vapours from runoff may create an

explosion hazard.

Personal Protective Equipment 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.

Flash Point -4 °C [Closed cup]

Lower Explosion Limit 2.2 % **Upper Explosion Limit** 11.5 % 427 °C **Auto Ignition Temperature**

Hazchem Code •3YE

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources - All equipment

used in handling the product must be earthed. Do not touch or walk through spilled material - Slippery when spilt. Avoid

accidents, clean up immediately. Avoid breathing vapours and contact with eyes, skin and clothing.

Clean Up Procedures Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect material and place it

in suitable containers for later disposal (see SECTION 13).

Containment 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.

Decontamination No information available.

Environmental Precautionary

Measures

Spillages and decontamination runoff should be prevented from entering drains and watercourses.

Evacuation Criteria Spill or leak area should be isolated immediately. Keep upwind and to higher ground. Keep unauthorised personnel

away. Large spill: Immediately contact Police or Fire Brigade; Consider initial downwind evacuation of areas within at

least 300 m.

Personal Precautionary Measures Wear 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

Handling Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/spray and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). HIGHLY FLAMMABLE LIQUID & VAPOUR: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground and bond container and receiving equipment. Use explosion-proof equipment and non-sparking tools. Take action to prevent

static discharges.

Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed when not in use.

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from foodstuffs and incompatible

materials (see SECTION 10). Store locked up.

Container Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General For Ethyl acetate (CAS No. 141-78-6):

- Safe Work Australia Exposure Standard: TWA = 200 ppm (720 mg/m3); STEL = 400 ppm (1,440 mg/m3).

- New Zealand Workplace Exposure Standard: TWA = 200 ppm (720 mg/m3).

- NIOSH REL/OSHA PEL: TWA = 400 ppm (1,400 mg/m3).

- Immediately Dangerous to Life or Health Concentration (IDLH): 2,000 ppm.

Exposure Limits No Data Available

Biological Limits No information available.

Engineering Measures 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.

Personal Protection Equipment

- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic vapour respirator (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles or face shield and safety glasses.
- Hand protection: Wear protective gloves. Recommended: Butyl rubber.
- Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Impervious clothing; Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the hazardous substance(s) at the specific workplace.

Special Hazards Precaustions

No information available.

80 g/L in water 25°C

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical StateLiquidAppearanceClear liquidOdourEther-like, fruityColourColourlesspHNo Data Available

pHNo Data AvailableVapour Pressure98.3 hPa (@ 20 °C)Relative Vapour Density3.04 Air = 1Boiling Point77 °C

Melting Point-84 °CFreezing PointNo Data Available

Specific Gravity 0.9003

Solubility

Flash Point -4 °C [Closed cup]

Auto Ignition Temp 427 °C

Evaporation RateNo Data AvailableBulk DensityNo Data AvailableCorrosion RateNo Data AvailableDecomposition TemperatureNo Data AvailableDensityNo Data AvailableSpecific HeatNo Data Available

Molecular Weight 88.1

Net Propellant Weight No Data Available **Octanol Water Coefficient** log Pow: 0.73 **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available **Vapour Temperature** No Data Available Viscosity No Data Available **Volatile Percent** No Data Available **VOC Volume** No Data Available

Additional Characteristics No information available.

Potential for Dust Explosion Not applicable.

Fast or Intensely Burning

Characteristics

Risk of violent reaction or explosion!

Flame Propagation or Burning

Rate of Solid Materials

No information available.

Non-Flammables That Could Contribute Unusual Hazards to a

No information available.

Properties That May Initiate or Contribute to Fire Intensity

HIGHLY FLAMMABLE LIQUID & VAPOUR: Low flashpoint – Will be easily ignited by heat, sparks or flame.

Reactions That Release Gases or

Vapours

Fire/decomposition will produce irritating, toxic and/or corrosive gases, including Carbon oxides.

Release of Invisible Flammable

Vapours and Gases

Vapours will form explosive mixtures with air.

10. STABILITY AND REACTIVITY

General Information Reacts with strong oxidants; This generates fire and explosion hazard. Reacts violently with strong bases and strong

acids. Attacks rubber and some forms of plastic.

Chemical Stability Stable under normal conditions of use.

Conditions to Avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

Materials to Avoid Incompatible/reactive with strong oxidisers, alkalis and acids.

Hazardous Decomposition

Products

Fire/decomposition will produce irritating, toxic and/or corrosive gases, including Carbon oxides.

Hazardous Polymerisation

Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Low acute toxicity by the oral route. Low acute toxicity by the dermal route. Low acute toxicity by the inhalation route. Swallowing can result in nausea, vomiting and central nervous system depression.
- Skin corrosion/irritation: Non-irritating/slight skin irritant. Will have a degreasing action on the skin. Repeated exposure may cause skin dryness or cracking.
- Eye damage/irritation: Causes serious eye irritation.
- Respiratory/skin sensitisation: Not likely to be skin sensitising.
- Germ cell mutagenicity: No mutagenic or genotoxic potential.
- Carcinogenicity: Not likely to be a human carcinogen.
- Reproductive toxicity: Not considered to have any specific reproductive and developmental effects.
- STOT (single exposure): May cause drowsiness or dizziness. Inhalation of high concentrations of vapours or aerosols may cause respiratory irritation. Breathing in vapour can result in headaches, dizziness, drowsiness and nausea. Breathing in high concentrations can produce central nervous system depression.
- STOT (repeated exposure): Not considered to cause serious damage to health from repeated exposure.
- Aspiration toxicity: No information available.

Acute

Ingestion Acute toxicity (Oral):

- LD50, Rat: 5,620 mg/kg

Other Acute toxicity (Dermal):

- LD50, Rabbit (male): >20,000 mg/kg

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity Aquatic toxicity:

- LC50, Fish (Pimephales promelas): 230 mg/L (96 h).

Persistence/Degradability The material is readily biodegradable.

Mobility No information available.

Environmental Fate Prevent entry into drains and waterways.

Bioaccumulation Potential No information available.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material

is highly flammable.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name ETHYL ACETATE

Class 3 Flammable Liquids

Subsidiary Risk(s) No Data Available

EPG 18 Liquids - Highly Flammable, Toxic And/Or Corrosive

UN Number 1173
Hazchem •3YE
Pack Group II

Special Provision No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name ETHYL ACETATE

Class 3 Flammable Liquids

Subsidiary Risk(s) No Data Available

EPG 18 Liquids - Highly Flammable, Toxic And/Or Corrosive

UN Number 1173
Hazchem 3YE
Pack Group II

Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name ETHYL ACETATE

Class 3 Flammable Liquids

Subsidiary Risk(s) No Data Available

EPG 18 Liquids - Highly Flammable, Toxic And/Or Corrosive

 UN Number
 1173

 Hazchem
 3YE

 Pack Group
 II

Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping NameETHYL ACETATEClass3 Flammable LiquidsSubsidiary Risk(s)No Data Available

ERG 129 Flammable Liquids (Polar / Water-Miscible / Noxious)

UN Number 1173 Hazchem 3YE Pack Group II

Special Provision No Data Available

Sea Transport

IMDG Code

Proper Shipping Name ETHYL ACETATE

Class 3 Flammable Liquids

Subsidiary Risk(s) No Data Available

UN Number 1173 Hazchem 3YE Pack Group II

Special Provision No Data Available

EMS F-E, S-D
Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping NameETHYL ACETATEClass3 Flammable LiquidsSubsidiary Risk(s)No Data Available

UN Number 1173
Hazchem 3YE
Pack Group II

Special Provision No Data Available

National Transport Commission (Australia)

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

Dangerous Goods ClassificationDangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by

Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information ETHYL ACETATE is listed in Appendix B of the SUSMP: Substances considered not to require control by scheduling (Low

toxicity; Any use).

Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001041 (Reissued)

National/Regional Inventories

Australia (AIIC) Listed

Canada (DSL) Listed

Canada (NDSL) Not Listed

China (IECSC) Listed

Europe (EINECS) 205-500-4

Europe (REACh) Listed

Japan (ENCS/METI) Listed

Korea (KECI) KE-0047

Malaysia (EHS Register) 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

ETACET1000, ETACET1001, ETACET1002, ETACET1003, ETACET1004, ETACET1005, ETACET1006, ETACET1007, ETACET1008, ETACET1019, ETACET1011, ETACET1012, ETACET1013, ETACET1014, ETACET1015, ETACET1016, ETACET1017, ETACET1018, ETACET1019, ETACET1020, ETACET1021, ETACET1022, ETACET1023, ETACET1024, ETACET1025, ETACET1026, ETACET1027, ETACET1028, ETACET1029, ETACET1030, ETACET1031, ETACET1032, ETACET1033, ETACET1034, ETACET1035, ETACET1036, ETACET1037, ETACET1055, ETACET1100, ETACET1101, ETACET1500, ETACET1700, ETACET1701, ETACET2000, ETACET2001, ETACET2150, ETACET2200, ETACET2500, ETACET2501, ETACET2600, ETACET2800, ETACET2900, ETACET3000, ETACET3010, ETACET3011, ETACET3020, ETACET3030, ETACET3040, ETACET3050, ETACET3051, ETACET3053, ETACET3055, ETACET3100, ETACET3200, ETACET3300, ETACET3400, ETACET3500, ETACET3501, ETACET3505, ETACET3600, ETACET3700, ETACET3800, ETACET3900, ETACET3400, ETACET4500, ETACET5500, ETACET55001, ETA

ETACET5600, ETACET5700, ETACET6000, ETACET6100, ETACET6500, ETACET6501, ETACET6502, ETACET6503, ETACET6510, ETACET6600, ETACET7000, ETACET7700, ETACET7701, ETACET8000, ETACET8800, ETACET9000, ETACET9500, ETACET9600

Revision 4

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square CentimetresCO2 Carbon Dioxide

COD Chemical Oxygen Demand **deg C (°C)** Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

q Grams

g/cm3 Grams per Cubic Centimetre

g/I Grams per Litre

HSNO Hazardous Substance and New Organism **IDLH** Immediately Dangerous to Life and Health **immiscible** Liquids are insoluable in each other.

inHg Inch of Mercury inH2O Inch of Water

K Kelvin **kg** Kilogram

kg/m³ Kilograms per Cubic Metre

Ih Pound

LC50 LC stands for lethal concentration. LC50 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.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre m³ Cubic Metre mbar Millibar mg Milligram

mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre

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

mm Millimetre

mmH20 Millimetres of Water mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Heath 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