



Safety Data Sheet

Date of Issue: 12.04.2021

Date of Expiry: 12.04.2026

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Distributor Name : **ECP Limited**
Address : PO Box 34125, Birkenhead, Auckland 0746
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Emergency phone number : 0800 243 622 (24 hours)

Product	Ethanol Denatured 70%		Code	33078
CAS#	UN #	DG Class/es	Packing group #	
64-17-5 67-56-1 7732-18-5	1170	3	II	

Recommended use : Laboratory Investigations, Industrial and domestics cleaners.

2: Hazard identification

GHS Classification of the substance/mixture

Classified as Hazardous according to the hazardous substances(minimum degrees of Hazard) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport according to the New Zealand standard NZS 5433:2012 Transport code of Dangerous Goods on Land.

- 3.1B - Flammable liquid: high Hazard.
- 6.1E (oral) - Substance that is acutely toxic.
- 6.4A - Substance that is irritating to the eyes.
- 6.8B - Substance that is suspected to be a human reproductive or developmental toxicant.
- 6.8C - Substance that produces toxic reproductive or developmental effects on or via lactation.
- 6.9A (Repeated exposure) - Substance that is toxic to human target organs or systems.

Pictogram(s)



Signal Word : Danger

Hazard statement(s)

- H225 Highly flammable liquid and vapour.
- H303 May be harmful if swallowed.
- H319 Causes serious eye irritation.
- H361 Suspected of damaging fertility or the unborn child.
- H632 May cause harm to breast fed children.
- H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s) - Prevention

- P102 Keep out of reach of children.
- P103 Read label before use.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.

- P210 Keep away from heat, hot surfaces, sparks, open flames & other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P241 Use explosion proof electrical /ventilating/lighting/equipment.
- P240 Ground/bond container and receiving equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- P263 Avoid contact during pregnancy/while nursing.
- P264 wash contaminated skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear eye protection/ face protection.

Response

- P101 If medical advice is needed, have product container or label at hand.
- P303 + P361+ P353 IF ON SKIN (or hair) : Remove/take off immediately all contaminated clothing. Rinse skin with water/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.
- P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- P314 Get medical advice/attention if you feel unwell.
- P370 + P378 In case of fire: use carbon dioxide, dry chemical, foam, water spray, sand or dolomite for extinction.

Storage

- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

Disposal

- P501 In case of the a substance that is in compliance with a HSNO approval other than a part 6A (Group Standards) approval, a label must provide description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the hazardous substance (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.
See section 13 for disposal details.

3: Composition/information on ingredients

Substance/Mixture: Substance

3.1 Substances

Hazardous components

Component	CAS	Proportion
Ethanol	64-17-5	< = 68.6 %
Methanol	67-56-1	< = 1.4%
Water	77732-18-5	< = 30 %

4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

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

5: Firefighting measures**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

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.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections

For disposal see section 13.

7: Handling and storage**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

8: Exposure controls/personal protection**Occupational exposure limit values**

Substance	Regulations	Exposure duration	Exposure limit	Units	Notes
Methanol	NZ OELs List	TWA	200	Ppm	Skin
Methanol	NZ OELs List	TWA	262	Mg/m3	Skin
Methanol	NZ OELs List	STEL	250	Ppm	Skin
Methanol	NZ OELs List	STEL	328	Mg/m3	Skin

Ethanol	NZ OELs List	TWA	1000	Ppm	
Ethanol	NZ OELs List	TWA	1880	Mg/m3	

Biological Limit Values

Name: Methanol

Determinant : Methanol in urine

Bei: 15 mg/g

Sampling time: End of shift

Source: American conference of Industrial Hygienists (ACGIH)

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure, then an approved respirator with a replaceable vapour/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.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9: Physical and chemical properties

Information on basic physical and chemical properties

a) Appearance

Form : liquid, clear

Colour : colourless

b) Odour : Characteristic

c) Odour Threshold : No data available

d) pH : Neutral

e) Melting point : -112.3 °C

f) freezing point : -114.1 °C

g) Boiling point : 78.32 °C

h) Solubility on water : Miscible

i) Solubility in Organic Solvents : Miscible with methanol, ether, chloroform, acetone

j) Specific gravity : 0.7904 (20°C)

- k) Flash point : 13 °C (closed up)
 l) Evaporation rate : 2.4 (n butyl acetate=1)
 m) Flammability (solid, gas) : No data available
 n) Upper/lower flammability or explosive limits
 Upper explosion limit : 19 %(V)
 Lower explosion limit : 3.3 %(V)
 o) Vapour pressure : 59.5 hPa at 20.0 °C
 p) Vapour density (Air=1) : 1.59
 q) Relative density : 0.7974 g/cm³
 r) Partition coefficient : n-octanol/water
 log Pow : -0.349 at 24 °C
 s) Auto-ignition temperature : 363.0 °C
 t) Viscosity : Refer to section 9: kinematic viscosity and dynamic viscosity
 u) Molecular weight : 46.07

Other information:

Oxidizing properties

Oxidizing Agents:

It can react vigorously with these :

Acids:

Concentrated nitric acid – violent reaction

Sulphuric acids – The mixture may become warm

Other acids- no dangerous reaction

Alkalis:

No dangerous reactions

Kinematic Viscosity : Not available

Dynamic Viscosity : 1.08cP (25°) , 1.2Pa.s (20°)

Chemical family : Alcohol (primary aliphatic)

Formula : C₂H₅OH

Is hygroscopic and a stable compound

Coefficient of cubic Expansion: 0.0011/°C

10: Stability and reactivity

Reactivity

Refer to section 10: Possibility of hazardous reactions

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, open flames and other sources of ignition.

Aluminium containers should be avoided as aluminium alcoholates may be formed under certain conditions. Ethanol is hygroscopic.

Incompatible materials

Strong oxidizing agents.

Methylated spirits is incompatible with oxidizing agents, alkali metals, acids, acid chlorides, ammonia and potassium tert-butoxide.

Hazardous decomposition products

Thermal decomposition may result in the release of toxic and/or irritating fumes including: carbon dioxide and carbon monoxide

Possibility of hazardous reactions

Reacts with incompatible materials.

Hazardous Polymerization:

Will not occur

11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity - Oral

Ethanol

LD50 (rat) Oral - 7060mg/kg

Acute Toxicity – Inhalation

Ethanol

LC50 (Rat): 20,000ppm/10hr

A study of the effects of ethanol inhalation in humans, found that between 5000-10,000ppm subjects experience coughing and smarting of the eyes and nose, with the symptoms disappearing within minutes. People exposed at 15,000ppm experienced continuous lacrimation and coughing. Irritation of the eyes and respiratory tract were not noted at concentrations below 5000ppm.

Potential health effects

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Ingestion

May be harmful if swallowed. Ingestion of this product may cause irritation of the nose, throat oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory Sensitisation

Not expected to be respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Ethanol typically inactive in genotoxic assays, but on some occasions, a weak response has been noted.

Carcinogenicity

Not considered a carcinogenic

There is no clear evidence that ethanol is a carcinogenic to laboratory animals; it is however a tumour promoter.

Reproductive toxicity

Suspected of damaging fertility or the unborn child. Classified as a suspected human reproductive or developmental toxicant. May cause harm to breast fed children. Classified as a substance that produces toxic human reproductive or developmental effects on or via lactation.

Oral exposure to ethanol produces malformations and developmental toxicity in rats and mice at maternally toxic doses. No developmental effects were observed in rats from inhalation at doses up to 20,000ppm.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Long Term Effects:

Ethanol

Evidence from animal tests and studies on exposed humans indicate that repeated or prolonged exposure to this chemical by inhalation or ingestion could result in liver damage.

Aspiration hazard

Not expected to be an aspiration hazard

Other information

Estimated fatal dose (human) 300-400ml of pure ethanol

12: Ecological information

Ecotoxicity

The available ecological data is given below.

Persistence and degradability

No data available

Bioaccumulative potential

Methylated spirits has a low potential for bioaccumulation and is substantially biodegradable in water.

Mobility in soil

No data available

Environmental Protection

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

Acute Toxicity – Fish

LC50(rainbow trout): 11,200mg/l/24h (flow through)

Other adverse effects

No data available

13: Disposal considerations

Disposal Considerations

Dispose of waste according to the applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture, or weld on or near containers. Empty containers may contain flammable residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods. And then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature.

Product disposal:

Product waste are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. In this specific case the product is a flammable substance and therefore can be sent to an approved high temperature incineration plant for disposal. Personal protective clothing and equipment as specified in section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in section 7 of this SDS regarding handling must be followed. Do not dispose of in sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected. In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service. Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous. In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste service is a means of compliance with regulations.

14: Transport Information Table

ADR/RID – European packaging certification		IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
UN Number	1170	1170	1170
UN Proper Shipping name	ETHANOL SOLUTION	ETHANOL SOLUTION	Ethanol Solution
Transport Hazard Class	3	3	3
Packaging group	II	II	II
Environmental Hazards	No	No	No
Special precautions for user	No data available		
Hazchem Code	2YE		

15: Regulatory information**Regulatory Information**

Classified as hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Group Standard: Denatured Ethanol Group Standard 2006.

HSNO Approval Code:

HSR002553

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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