



## Safety Data Sheet

Date of Issue: 01.10.2020

Date of Expiry: 01.10.2025

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : **ECP Limited**  
Address : PO Box 34125, Birkenhead, Auckland 0746  
Telephone : +64 9 480 4386  
Facsimile : +64 9 480 4385  
Emergency phone number : 0800 243 622 (24 hours)

Product	Ethanol absolute HGAA			Code	HGAA
CAS#	HSNO#	UN #	DG Class/es	Packing group #	
64-17-5	HSR001144	1170	3	II	

Recommended use : Laboratory Investigations

### 2: Hazards identification

New Zealand:

Classified as Hazardous according to the Hazardous Substances (Classification) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport, according to the NZS 5433:1999 Transport of Dangerous Goods on Land.

HSNO Classification:

3.1B - Substance that is flammable liquid: High hazard.

6.4A - Substance that is irritating to the eye.

9.1D - Substance that is slightly harmful to the aquatic environment.

#### 2.1 GHS Classification

Flammable Liquids (Category B)

Skin irritation (Category A)

Eye irritation (Category A)

#### 2.2 GHS Label elements, including precautionary statements

##### Hazard Pictogram



Signal word : **Danger**

##### Hazard statement(s)

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H320 Causes eye irritation.

##### Precautionary statement(s)

###### 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.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response

- 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.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

### Storage

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

### Disposal

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

## 3: Composition/information on ingredients

Substance / Mixture : Substance

### 3.1 Substances

Synonyms : Ethyl alcohol  
Formula : C<sub>2</sub>H<sub>6</sub>O  
Molecular weight : 46.07 g/mol  
CAS-No. : 64-17-5  
EC-No. : 200-578-6  
Index-No. : 603-002-00-5

Ingredients	Name	CAS	Proportion
	Ethanol	64-17-5	100 %

## 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Consult a physician. Show this material 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. 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.

### 4.2 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

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **5: Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

#### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides

Combustible.

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

Use water spray to cool unopened containers.

### **6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

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

For personal protection see section 8.

#### **6.2 Environmental precautions**

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

#### **6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

#### **6.4 Reference to other sections**

For disposal see section 13.

### **7: Handling and storage**

#### **7.1 Precautions for safe handling**

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

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

For precautions see section 2.2.

#### **7.2 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.

hygroscopic

#### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### **8: Exposure controls/personal protection**

#### **8.1 Control parameters**

##### **Occupational Exposure Limits Table**

Component	CAS No.	Value	Control parameters	Basis
Ethanol	64-17-5	WES-TWA	1000 ppm 1880 mg/m <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

## 8.2 Exposure controls

### 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.

## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	: Clear, colourless liquid with characteristic alcoholic odour.
<b>Melting Point</b>	: -117°C
<b>Boiling Point</b>	: 78°C
<b>Solubility in Water</b>	: Soluble
<b>Specific Gravity</b>	: 0.79-0.81
<b>Vapour Pressure</b>	: 44 mmHg at 20°C
<b>Vapour Density (Air=1)</b>	: 1.59 at 15°C (Air=1)
<b>Evaporation Rate</b>	: 2.53 (n-Butyl acetate=1)
<b>Volatile Component</b>	: 100%
<b>Flash Point</b>	: 13°C (Abel closed cup)
<b>Flammability</b>	: HIGHLY FLAMMABLE. This product should be stored and used in a well-ventilated area away from naked flames, sparks and other sources of ignition. Electrically link and ground metal containers for transfers of the product to prevent accumulation of static electricity. Keep the container tightly closed.
<b>Auto-Ignition Temperature</b>	: 392°C
<b>Flammable Limits - Lower</b>	: 3.5%
<b>Flammable Limits - Upper</b>	: 19.0%

## 10: Stability and reactivity

### 10.1 Reactivity

No data available

## 10.2 Chemical Stability

Stable under normal conditions of storage and handling.

## 10.3 Conditions to Avoid

Heat, direct sunlight, open flames or other sources of ignition.

## 10.4 Incompatible Materials

Strong oxidising agents.

## 10.5 Hazardous Decomposition Products

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

## 10.6 Hazardous Polymerization

Will not occur.

## 11: Toxicological information

### 11.1 Toxicology Information

For Ethanol:

LD50 (Oral, Rat): 7,060 mg/kg

LD50 (Oral, Mouse): 3,450 mg/kg

LC50 (Inhalation, Rat): 20,000 ppm/10h

LC50 (Inhalation, Rat): >8,000 ppm/4h

#### Inhalation

May cause irritation to the respiratory tract and mucous membranes. Inhalation of the vapour may result in headache, nausea and vomiting. High concentrations may cause central nervous system symptoms similar to 'swallowed' above.

#### Ingestion

Swallowing can cause drunkenness or harmful central nervous system effects. Effects of a small intake may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision and fatigue. Severe acute intoxication may cause hypoglycaemia, hypothermia and extensor rigidity. Other effects may include decreased blood pressure, vomiting blood and blood changes. Aspiration into the lungs may cause pneumonitis.

#### Skin

May cause redness, itching and irritation.

#### Eye

May be irritating to eyes. On eye contact this product may cause tearing, stinging, blurred vision, and redness.

#### Chronic Effects

Prolonged or repeated skin contact may cause defatting leading to dermatitis. Long term exposure by swallowing or repeated inhalation may cause degenerative changes in the liver, kidney, gastrointestinal tract and heart muscle.

## 12: Ecological information

### 12.1 Toxicity

*Toxicity to fish flow-through test*

LC50 - Pimephales promelas (fathead minnow) - 15.3 mg/l - 96 h

*Toxicity to daphnia and other aquatic invertebrates*

LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h

NOEC - Daphnia magna (Water flea) - 9.6 mg/l - 9 d

### Toxicity to algae

EC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h

Method: OECD Test Guideline 201

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 15 d Result: 95 % - Readily biodegradable.

Method: OECD Test Guideline 301E

### 12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

No data available

### 12.6 Other adverse effects

No data available

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1170	1170	1170
14.2	UN Proper Shipping name	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3	Transport Hazard Class	3	3	3
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	None		
14.7	Incompatible materials	rubber, various plastics		

## 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulatory information

HSNO Approval Code: HSR001144

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group  
Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

#### **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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