

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Name:** *Ethanol Denatured AMS 50% Solution*

**Other Names:** *Ethanol Denatured AMS 50% Solution*  
Industrial solvent

**Recommended Use:**

**Supplier:** TMK Packers Ltd

**Address:** 2/20 Trugood Drive, East Tamaki.  
PO Box 258 031, Botany, Manukau 2163

**Telephone:** (+64) 9 273 3753

**Facsimile:** (+64) 9 273 3752

**Website:** [www.tmkpackers.co.nz](http://www.tmkpackers.co.nz)

**Emergency phone:** **National Poison Centre**  
**0800 POISON [ 0800 764 766 ]**



### 2. HAZARDS IDENTIFICATION

Product is classified as hazardous according to Schedules 1 to 6 of the *Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001* of the HSNO Act, 1996.

**HSNO Classifications:** 3.1C, 6.4A, 6.8B, 6.9B

**Signal word:** **DANGER**

#### **Hazard Statements :**

H225 Highly flammable liquid and vapour.

H320 Causes eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

#### **Prevention Statements :**

P103 Read label before use.

P201 Obtain special instructions before use.

P202 Do not handle until all safety instructions have been read and understood.

P210 Keep away from heat, open flames, hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond containers 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 hands thoroughly after handling  
P280 Wear protective gloves and eye protection.  
P281 Use personal protection equipment as required.

### 3. COMPOSITION : Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%)
Ethyl Alcohol	64-17-5	> 50
Methanol	67-56-1	≤ 1
Water	7732-18-5	< 50

### 4. FIRST AID MEASURES

For advice, contact the National Poison Centre (0800 POISON; 0800 764 766) or a doctor.  
Have product container or label available.

#### Swallowed

If swallowed, do NOT induce vomiting. Rinse mouth and give a glass of water to drink if person is conscious. Get medical attention.

#### Skin Contact

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If irritation persists get medical attention.

#### Eye Contact

Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes. Remove contact lenses if present and easy to do, after the first 5 minutes and continue rinsing. Get medical attention if irritation persists.

#### Inhalation

Move the victim to fresh air immediately. Keep warm and at rest until recovered. Get medical attention if recovery is not rapid.

**First Aid Facilities:** Provide eye bath and hand washing facilities.

**Advice to Doctor:** Treat according to symptoms. Gastric lavage may be indicated if ingested. Do not wait from symptoms to develop. General measures should be taken to control acidosis and maintain urine output.

### 5. FIRE FIGHTING MEASURES

**Flashpoint:** 23°C  
**Flammable limits:** LFL: 3.5% UFL: 19.0%



#### Extinguishing media:

Water fog or fine spray mist.

#### Fire & Explosion hazards:

Highly flammable liquid and vapour. The vapour forms explosive mixtures with air. Do not breathe smoke, gases or vapours generated in a fire. Decomposition products may be toxic.

#### Firefighting Equipment:

Full protective clothing and self-contained breathing apparatus (SCBA).

#### In event of fire:

- Alert Fire Bridge (111); advise location and nature of hazard.
- Keep bystanders away.
- Wear breathing apparatus and protective gloves.
- Shut off product that may 'fuel' a fire if safe to do so.
- Eliminate sources of ignition
- If safe, switch off electrical equipment until vapour hazard removed.
- Use fine water spray to control fire and cool adjacent area.
- Allow trained personnel to attend a fire in progress, providing fire-fighters with this Safety Data Sheet.
- Prevent product and extinguishing media from escaping to drains and waterways.

#### Hazards from combustion products:

Carbon monoxide carbon dioxide, hydrogen gas.

Hazchem Code: 2YE

## 6. ACCIDENTAL RELEASE MEASURES

#### Emergency Procedures & Containment:

Refer to "Fire Fighting Measures", "First Aid Measures" and "Stability and Reactivity".

#### Minor spills

- Clean up spills immediately.
- Remove all ignition sources.
- Avoid breathing vapours and contact with skin and eyes.
- Wear personal protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Collect residues and waste material in a labelled container.
- Seal container and dispose of safely.

#### Major spills

- Clear area of personnel and move upwind.



- Alert Fire Bridge (111); advise location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Eliminate ignition sources, naked lights. No smoking.
- Stop leak if safe to do so.
- Water spray or water fog may be used to disperse or absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use spark-free shovels and explosion proof equipment.
- Prevent by any means available, spillage from entering drains, sewers, watercourses, or low-lying areas.
- Increase ventilation.
- Collect recoverable product into labeled contains for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent run off into drains.
- If contamination of drains or waterways occurs, advise Emergency Services and Local or Regional authority.

## 7. HANDLING AND STORAGE

### Precautions for safe handling:

Read product label before use. Highly flammable liquid and vapour. Use in well-ventilated area. Avoid smoking, naked lights or ignition sources. Avoid generation of static electricity. Use only spark-free tools. Open container slowly to control possible pressure release. Wear personal protective equipment and clothing including gloves and wash hands with soap and water after handling.

### Conditions for safe storage:

Store in original packaging in a cool, dry well-ventilated place out of reach of children. Check containers periodically for leaks or distortion.

### Incompatible materials:

None specified.

## 8. EXPOSURE CONTROLS : PERSONAL PROTECTION

### Health Exposure Standards:

Workplace Exposure Standards (WES) have been set by the Occupational Safety and Health Service, NZ Department of Labour for components in this product.

	WES-TWA	WES-STEL
Ethyl alcohol	1000 ppm (1880 mg/m <sup>3</sup> )	-
Methanol <sub>SKIN, BIO</sub>	200 ppm (262 mg/m <sup>3</sup> )	250 ppm (328 mg/m <sup>3</sup> )

**Biological limit values:** None established





### Engineering Controls:

**Ventilation:** Avoid breathing vapours. Use product outdoors or in well-ventilated area. Use explosion-proof equipment. Wear a SAA approved respirator when using in confined area or where over-exposure risk exists.

### Personal Protective Equipment:

**Respiratory Protection:** Where air concentration may exceed Workplace Exposure Standard, wear SAA approved respiratory protection. A half-filter mask and type 'A' filter material should be suitable.

**Eye Protection:** Protect eyes from splashes. Always use safety glasses with side shields, or wear goggles.

### Skin/ Body Protection:

Wear gloves, e.g. PVC, nitrile. Wear safety footwear or safety gumboots, e.g. rubber, and clothing with long sleeves and long trousers or coveralls.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear colourless liquid
Odour	-	Alcohol
Flash Point	°C	23
Specific gravity @ 20°C	g/ml	0.878
Vapour Pressure @ 20°C	mmHg	96
Vapour Density @ 20°C	kPa	1.6
Explosive Limits in Air	%	3.3 – 19.0
Viscosity	cSt	Not available
Volatiles	%vol/vol	70
Alkalinity/acidity (as pH)	-	Not applicable
Solubility in Water	% w/w	Soluble

The values listed are indicative of this product's physical and chemical properties.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature and pressure.

**Conditions to avoid:** Sources of heat, ignition, open flames.

**Hazardous decomposition products:** No decomposition products except on burning. See "Fire Fighting Measures" and "Hazardous Reactions".

**Hazardous reactions:** None specified



## 11. TOXICOLOGICAL INFORMATION

### Acute Effects

#### **Ingestion**

The ingestion of large quantities will cause adverse central nervous system effects. Symptoms include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death. Severe intoxication may cause hypoglycemia and hypothermia. Other possible effects are decreased blood pressure, vomiting and blood discharges.

#### **Eye Contact**

This product as liquid or vapour, may be irritating to the eyes resulting in tearing and redness.

#### **Skin Contact**

This product can be irritating to the skin. Prolonged or repeated exposure may result in redness, itching, swelling. A small proportion of the population may develop an allergic reaction.

#### **Inhalation**

Vapours moderate irritating to respiratory tract and mucous membranes. Inhalation may cause symptoms of headache, nausea and vomiting. High concentrations may lead to adverse central nervous system effects.

**Chronic Effects:** Methanol is identified as a possible reproductive/development toxicant. Methanol is only slowly eliminated from body so should be regarded as a cumulative poison which cannot be made non-harmful.

**Other Health Effects Information:** Principal routes of exposure are by inhalation of vapour and skin contact/absorption. Persons with pre-existing liver, skin and respiratory disorders may be at an increased risk from exposure. Ingestion of alcohol by pregnant women is associated with foetal alcohol syndrome in babies.

#### **Toxicological Information:**

Methanol Oral, LD<sub>50</sub>, mouse 870 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

#### **Aquatic toxicity:**

This product has not been classified as being toxic to aquatic life.

#### **Persistence/degradability:**

Not expected to be persistent or bioaccumulative.

Product is highly volatile and will evaporate to air if released into water.



**Mobility:** Product is soluble in water.

**Other information:** Not available.

**Environmental Exposure Standards:**

EEL (WATER):	Not set
EEL (SOIL)	Not set
EEL (SEDIMENTS)	Not set

## 13. DISPOSAL CONSIDERATIONS

**Disposal Methods:**

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national, regional and local authority regulations. Packaging may still contain flammable vapours. Dry container before disposal or triple rinse with water.

## 14. TRANSPORT INFORMATION

UN Number: 1170  
Shipping name: ETHANOL SOLUTION  
Class: 3.1  
Packing group: II  
Hazchem code: 3YE

**Dangerous Goods Segregation**

This product is classified as a Dangerous Good Class 3.  
Please consult NZS 5433:2007 Transport of Dangerous Goods on Land for information.

## 15. REGULATORY INFORMATION

**Country/ Region:** New Zealand  
**Inventory:** NZCIL  
**Status:** Listed

**ERMA New Zealand Approval Code:**  
HSR002553; Denatured Alcohol Group Standard, 2006  
Refer [www.ermanz.govt.nz](http://www.ermanz.govt.nz) for information on Controls.

## 16. OTHER INFORMATION

**Date of Issue:** 5<sup>th</sup> October 2022  
**Reasons for Issue:** New Safety Data Sheet  
**Replaces:** -

Product Name: Ethanol Denatured AMS 50%  
Date of Issue: 5<sup>th</sup> October, 2022

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**Abbreviations:**

CAS No	Chemical Abstracts Number
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substances and New Organisms
NZCI	New Zealand Chemical Inventory
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
WES	Workplace Exposure Standard

**References:**

Supplier Material Safety Data Sheets

ERMA website: [www.ermanz.govt.nz](http://www.ermanz.govt.nz)

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact TMK Packers Ltd.

END OF SAFETY DATA SHEET

