

1. IDENTIFICATION

Product name: **METHO**

Synonyms

Ethanol IMS 100%, Ethanol solution, denatured ethanol

Recommended use: Industrial solvent, cleaning component

Product Code

435

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SDS Date 21 JANUARY 2021 Version 1.2

2. HAZARDS IDENTIFICATION

Hazardous Nature

This product is classified as hazardous under GHS for Australia criteria

Hazardous Classification

Flammable Liquids: 2; Acute Toxicity - Oral: 3

Hazardous Statement

Highly Flammable liquid and vapour



GHS Pictograms

Hazard Statements

H225: Highly flammable liquid and vapour

H301: Toxic if swallowed

H372: Causes damage to organs through prolonged or repeated exposure

Precautionary Statements

P102: Keep out of reach of children.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P307+311: IF exposed: Call a POISON CENTER or doctor/physician.

Dangerous Goods Classification 3

Poisons Schedule 5

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%v/v)
Ethanol	64-17-5	> 99
Water	7732-18-5	< 1
Denatonium Benzoate	3734-33-6	5 ppm
Methyl Isobutyl Ketone	108-10-1	< 0.2

4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 13 1126) or a doctor. Ingestion
If swallowed, DO NOT induce vomiting. Keep at rest. Seek immediate medical attention.

Eye Contact

Flush eyes with large amounts of water until irritation subsides. Seek immediate medical attention.

Skin Contact

Flush area with large amounts of water and wash area with soap if available. Remove contaminated clothing, including shoes, and launder before reuse. Seek medical attention for skin irritations.

Inhalation

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek immediate medical attention.

First Aid facilities

Provide eye baths and safety showers.

Medical Attention

Treat according to symptoms. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

Water fog or fine spray mist

Hazards from combustion products

Carbon monoxide and carbon dioxide, water and hydrogen gas **Precautions for fire fighters and special protective**

equipment. Full protective clothing and self-contained breathing apparatus **Hazchem Code:** • 2YE

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Methods and materials for containment

Major Land Spill

- Eliminate sources of ignition.
- Warn occupants of downwind areas of possible fire and explosion hazard.
- Prevent liquid from entering sewers, watercourses, or low-lying areas.
- Keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.
- Take measures to minimise the effect on the ground water.
- Contain the spilled liquid with sand or earth.
- Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”

Major Water Spill

- Eliminate any sources of ignition.
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard.
- Notify the port or relevant authority and keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Confine the spill if possible.
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See “First Aid Measures” and “Stability and Reactivity”.

7. HANDLING AND STORAGE

Precautions for safe handling

This product is flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static charge. Use grounding leads to avoid discharge (electrical spark).

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Do not pressurise, cut, heat or weld containers - residual vapours are flammable. This product is flammable and will fuel a fire in progress.

Incompatible materials

None specified

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

National Exposure Standards

The time weighted average concentration (TWA) for this product is: 1880 mg/m³ (1000 ppm), which means the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short-term exposure limit (STEL) is: Not specified, which is the maximum allowable exposure concentration at any time.

Biological limit values

None specified

Engineering Controls: Ventilation

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type "A" filter material is considered suitable for this product.

Eye Protection: Always use safety glasses or a face shield when handling this product.

Skin/ Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves (e.g. PVC) be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear, colourless liquid
Boiling Point/ Range	°C	78
Flash Point	°C	11
Density @ 15°C	g/ml	0.79 - 0.81
Vapour Pressure @ 20°C	kPa	44 mmHg
Explosive Limits (LEL – UEL)	%	3.5 – 19.0
Vapour Density @ 20°C	kPa	1.59
Autoignition Temperature	°C	392
Viscosity @ 20°C	cSt	Not applicable
Percent Volatiles	%	100
Solubility with Water	% w/w	Completely soluble

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at room temperature and pressure

Conditions to avoid

Sources of heat and ignition, open flames.

Hazardous decomposition products

Carbon monoxide, carbon dioxide, and other organic compounds on incomplete burning or oxidation

Hazardous reactions

None specified

Hazardous Polymerisation

Will not occur

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion

If swallowed, will cause harmful 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, acute intoxication may cause hypoglycemia, hypothermia and extensor rigidity. Other effects may include decreased blood pressure, vomiting blood and blood discharges. Aspiration to the lungs may cause chemical pneumonitis.

Eye Contact

Vapour s may irritate the eyes. Liquid and mists may severely irritate or damage the eyes.

Skin Contact

Moderately irritating to the skin. Brief contact may cause redness. Repeated or prolonged contact may lead to dermatitis with redness, itching, swelling and possible secondary infection. A small proportion of the population may develop an allergic skin reaction.

Inhalation

Moderately irritating to respiratory tract and mucous membranes. Inhalation of the vapour may result in headache, nausea and vomiting. High concentrations may cause central nervous system depression - symptoms outlined in 'Ingestion'.

Chronic Effects

Chronic intoxication by swallowing or repeated inhalation, may cause degenerative changes in the liver, kidneys, hair, gastrointestinal tract and heart muscle. The combination of this product and Toluene produce potentiated (greatly increased) health effects. These symptoms can be found in 'Ingestion' and 'Inhalation'.

Other Health Effects Information

Persons with pre-existing liver impairment, skin and respiratory disorders may be at an increased risk from exposure. Ethanol may also casue adverse reproductive effects. Concurrent absorption of ehtanol and some drugs may cause adverse health effects. Ingestion of beverages containing ethanol by pregnant women is associated with 'foetal alcohol syndrome' in their babies. The IARC has evaluated alcohol drinking as a Group 1 carcinogenic to humans.

Toxicological Information

Oral LD₅₀: Rat: 7060 mg/lg

Dermal TC_{Lo}: Rabbit (dermal): 20 g/kg

12.ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic

Toxicity

Fish Toxicity (rainbow trout, goldfish, bluegill):	LC ₅₀ (96hr): Fathead minnow: 13480000 µg/L
Daphnia Magna EC ₅₀ (24 hr):	LC ₅₀ (Mort): 5680000 µg/L
Blue-green algae (Toxicity threshold 7-8 days):	LO _{EC} : 1450000 µg/L
Green algae (Toxicity threshold 7-8 days):	LO _{EC} : 5000000 µg/L

Persistence/ degradability

This product readily biodegrades on exposure to light and air.

Mobility

This product is mobile on dilution, risking contamination of waterways, grasslands and soils.

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 and local authorities. Packaging may still contain fumes and vapours that are flammable and harmful. Ensure that empty packaging is allowed to dry.

Special Precautions for Landfill or Incineration

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be burned directly in appropriate equipment.

14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN No.	1170	UN No.	1170	UN No.	1170
Proper Shipping Name	Ethanol Solution	Proper Shipping Name	Ethanol Solution	Proper Shipping Name	Ethanol Solution
DG Class	3	DG Class	3	DG Class	3
Sub. Risk	None	Sub. Risk	None	Sub. Risk	None
Pack Group	II	Pack Group	II	Pack Group	II
Hazchem	• 2YE	Hazchem	• 2YE	Hazchem	• 2YE

Dangerous Goods Segregation

This product is classed as Dangerous Goods Class 3, packing group II. Please consult the Australian Dangerous Goods Code for Transport by Road and Rail for information.

15. REGULATORY INFORMATION

Country/ Region: Australia

Inventory: AICS

Status: Listed

Poisons

Schedule: 5

15. OTHER INFORMATION

Poison Schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information

ABBREVIATIONS:

- ADB - Air-Dry Basis.
- BEI - Biological Exposure Indice(s)
- CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
- CNS - Central Nervous System.
- EINECS - European Inventory of Existing Commercial Substances.
- GHS - Globally Harmonized System
- IARC - International Agency for Research on Cancer.
- M - moles per litre, a unit of concentration.

METHO

Safety Data

mg/m³ - Milligrams per cubic meter.
NOS - Not Otherwise Specified.
NTP - National Toxicology Program.
OSHA - Occupational Safety and Health Administration.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Clean Plus Chemicals report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Clean Plus Chemicals report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status

This Safety Data Sheet document has been compiled by Clean Plus Chemicals. Further clarification regarding any aspect of this product should contact Clean Plus Chemicals directly. While Clean Plus Chemicals has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Clean Plus Chemicals accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.