

# MATERIAL SAFETY DATA SHEET

## Generic MSDS

For reference purposes only

Hazardous according to criteria of Worksafe Australia.

## I IDENTIFICATION

Product Name: Methylated Spirit

Other Names: Denatured alcohol Correct Shipping Name is "ETHANOL SOLUTIONS".

Dangerous Goods Class: Class 3 (Flammable Liquid)

Sub Risk Class: No Subsidiary Risk.

Packaging Group: II

EPG: 3A1

Most EPGs may now be substituted by the "Initial Emergency Response Guide" available from Standards Australia.

Poison Schedule: S5

Product Type: Organic liquid/solvent.

Chemical Family: Aliphatic alcohol.

Uses: Chemical intermediate; Solvent.

### **Physical appearance & Properties:**

Appearance & Odour: Clear colourless liquid. Characteristic odour.

Melting/softening point: -117°C

Boiling point and vapour pressure: 78°C

Volatile materials: 100%

Flashpoint: 13°C

Specific gravity: 0.79 - 0.89

Solubility in water: Completely soluble.

Corrosiveness: Not corrosive.

Vapour Density: 1.59 (air=1)

Autoignition Temperature: 392°C

Evaporation rate: 2.53 (butyl acetate=1)

Solubility in organic solvents: Soluble in most organic solvents.

### Ingredients:

Chemical entity	CAS No	Proportion	Worksafe Exposure Limits	
			TWA	STEL
		%	mg/m <sup>3</sup>	mg/m <sup>3</sup>
Ethanol	64-17-5	96-99.8	1880	not set
Water	7732-18-5	0.2 - 4	not set	not set
Denaturant *				

\* May be one or more of the following: diethyl phthalate, tertiary butyl alcohol, brucine sulphate, denatonium benzoate, methyl isobutyl ketone, fluorescein. The denaturants never exceed 1% of the final product and will not alter the safety of the product.

This is a commercial product, and the exact ratio of components may vary. Trace quantities of impurities are also likely.

## II HEALTH HAZARD DATA

### **Health Effects:**

No specific data is available for the product for chronic exposure symptoms. This product is not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995).

Generally regarded as one of the safer solvents. The denaturants make it unfit for drinking purposes.

### **Acute Effects:**

Swallowed: Data indicates that the product should be considered as harmful by ingestion. May cause headache, dizziness, dullness, gastric disorders and symptoms of central nervous system depression.

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**Eye:** Data indicates that this product should be classified as a moderate eye irritant. Liquids and mists may severely irritate or damage the eyes. However, permanent eye damage should not be expected.

**Skin:** Data indicates that product presents low hazard via skin contact. Brief contact may cause redness. Repeated or prolonged contact may lead to dermatitis.

**Inhalation:** Inhalation may cause irritation of the nose and throat and cause coughing and chest discomfort. May also result in headaches, nausea and vomiting. High concentrations may cause unconsciousness.

**Primary** route of exposure is inhalation and skin and eye contact.

## **First Aid:**

**Swallowed:** If swallowed, more than 15 minutes from a hospital, and victim is conscious, induce vomiting, preferably using Ipecac syrup APF. Give a glass of water and transport to hospital. If swallowed and victim is unconscious or convulsing, keep victim warm, and transport to hospital or doctor.

**Eye:** If this product comes into contact with eyes, hold eyes open and wash continuously for 15 minutes with running water. Ensure irrigation under eyelids by occasionally lifting eyelids. Do not attempt to remove contact lenses unless trained. Transport to hospital or doctor immediately.

**Skin:** If this product comes into contact with skin, wash skin with soap and water for 15 minutes. Remove contaminated clothing and footwear. Ensure contaminated clothing is thoroughly washed before using again. Transport to hospital or doctor immediately.

**Inhalation:** If fumes or combustion products are inhaled, remove to fresh air. Lay victim down & keep warm and rested. If breathing is shallow, or has stopped, ensure clear airway and apply resuscitation or oxygen if available. Transport to hospital or doctor immediately.

**Eye wash** stations or baths should be available whenever chemical products are being used.

**Advice to doctor:** Treat symptomatically. Note the nature of this product.

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## **III PRECAUTIONS FOR USE**

Risk Phrases are: R10, R22. Flammable. Harmful if swallowed.

### **Exposure Standards:**

This material has a TWA value of 1880 and STEL value not set. Values expressed as mg/m<sup>3</sup>. Exposure values at the STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. Exposure values at the TWA (Time Weighted Average) means the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. See ingredients section on page 1 of this data sheet.

### **Engineering Controls:**

Ventilation must be adequate to ensure that the working environment is below the TWA value. Otherwise, use respiratory protection. Some materials should only be used when respiratory protection is being worn. For information on respiratory protection, consult AS1716. See below for further information.

### **Personal Protection:**

**Respiratory Protection:** A face mask or respirator is not generally necessary when this material is being used in confined or poorly ventilated areas. Use an organic vapour canister if available. For help in selecting suitable equipment consult AS/NZS 1715.

**Protective Gloves:** Rubber or PVC gloves are advised. For help in selecting suitable gloves consult AS 2161.

**Eye Protection:** Full face mask, safety glasses or goggles are advised. Consult AS 1336 and AS/NZS 1337 for information about eye protection.

**Clothing:** Clean overalls should to be worn, preferably with an apron. All skin areas should be covered. Consult AS 2919 for advice on Industrial Clothing.

**Safety Boots:** Wearing safety boots would be advisory. Consult AS/NZS 2210 for advice on Occupational Protective Footwear.

**Flammability Limits:** Lower: 3.5% Upper: 19.0%

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## **IV SAFE HANDLING INFORMATION**

Combination Safety Phrases are: S20/21. When using, do not eat, drink or smoke.

### **Storage & Transport:**

UN number is 1170 and Hazchem code is 2[Y]E. It is classed as "Class 3 (Flammable Liquid)". Not to be transported with Classes 1 (Explosives), 2.1 (Flammable Gases) (nb this applies only when in bulk), 2.3 (Poisonous Gases), 4.2

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(Spontaneously Combustible Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides) and 7 (Radioactive Substances), foodstuffs or foodstuff empties. Observe all regulations associated with this classification when carrying by road or rail. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure the material does not come into contact with water or acids.

### **Spills and disposals:**

In event of a major spill, clear area of personnel. Alert fire brigade and advise of nature & location of spill. Wear full protective clothing and self contained breathing apparatus, especially in confined spaces. Prevent spillage from entering drains or water courses. Stop leak if safe to do so, and contain spill. Absorb onto vermiculite, sand, sawdust or other absorbent material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage. Recycle containers wherever possible. After spills, wash area, preventing runoff from entering drains. If material enters drains, advise emergency services. This material may be suitable for approved incineration or landfill. Dispose of only in compliance with local, state and federal regulations. Launder all contaminated clothing before re-use.

### **Fire/Explosion Hazard:**

There is no explosion hazard from this material under normal circumstances. However, dangerous fire hazard when exposed to flames or oxidisers. Forms explosive mixtures in vapour form.

Flashpoint: 13°C

Extinguishing Media: Carbon dioxide, dry chemical or foam.

Special Fire fighting procedures: Firefighters should wear full protective clothing and self contained breathing apparatus when fighting fires involving this product.

Unusual fire & Explosion hazards: Heat produces toxic vapours. Heat may cause violent rupture of containers.

Stability: Stable.

Polymerisation: Will not polymerise.

Decomposition Products: Carbon dioxide, carbon monoxide, water.

Materials to avoid: Strong acids, strong alkalis, strong oxidising agents.

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## **V OTHER INFORMATION**

This MSDS is prepared in accord with the Worksafe Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets", 1994.

### Contact Points:

**Police and Fire Brigade:**

**Dial**

**AUSTRALIA**

**000**

**If ineffective:**

**Dial**

**1100 (Exchange)**

**National Poisons Information Centre:**

**Dial**

**13 1126 (from anywhere in Australia)**

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