

## SAFETY DATA SHEET

**Product Name**      **METHO**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier name**                      **LIBERATO BULK CHEMICAL & REPACK SPECIALISTS PTY. LTD.**  
**Address**                                1 Kalinga Way, Landsdale, WA, 6065, AUSTRALIA  
**Telephone**                            1300 377 696  
**Emergency**                           1300 377 696  
**Email**                                    [sales@liberato.com.au](mailto:sales@liberato.com.au)  
**Web site**                                <http://www.liberato.com.au>  
**Synonym(s)**                            ETHANOL  
**Use(s)**                                    SOLVENT  
**SDS date**                                05 November 2013

### 2. HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA**

**RISK PHRASES**

R11                                        Highly flammable.

**SAFETY PHRASES**

S16                                        Keep away from sources of ignition - No smoking.  
S23                                        Do not breathe gas/fumes/vapour/spray (where applicable).  
S24/25                                    Avoid contact with skin and eyes.  
S36                                        Wear suitable protective clothing.

**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**UN number**                            1170                                      **DG class**                                    3  
**Packing group**                        II    **Subsidiary risk(s)**                        None Allocated  
**Hazchem code**                        •2YE

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Identification	Classification	Content
ETHANOL	CAS: 64-17-5 EC: 200-578-6	F;R11	99%
DENATURING AGENT	Not Available	Not Available	<1%

### 4. FIRST AID MEASURES

**Eye**                                        If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation**                                If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin**                                        If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion**                                For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Urgent hospital treatment is likely to be needed. If swallowed, do not induce vomiting. Rinse mouth out with water and give plenty of water to drink.

Product Name **METHO**

Advice to doctor Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Highly flammable. May evolve carbon oxides and hydrocarbons when heated to decomposition. Eliminate all ignition sources including; cigarettes, open flames, pilot lights, heaters, spark producing switches/ tools, electrical equipment, naked lights etc. when handling. Earth containers when dispensing fluids.
<b>Fire and explosion</b>	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas. Containers may explode in fire.
<b>Extinguishing</b>	Dry agent, carbon dioxide or foam. Prevent contamination of drains or waterways.
<b>Hazchem code</b>	•2YE <ul style="list-style-type: none"><li>• Alcohol resistant foam is the preferred firefighting medium</li><li>2 Water Fog (or fine water spray if fog unavailable)</li><li>Y Self Contained Breathing apparatus and protective gloves.</li><li>E Evacuation of people in the vicinity of the incident should be considered.</li></ul>

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible.
<b>Environmental precautions</b>	Prevent product from entering drains and waterways.
<b>Methods of cleaning up</b>	Contain spillage, then cover/absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
<b>References</b>	See Sections 8 and 13 for exposure controls and disposal.

## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection systems.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Ethanol	SWA (AUS)	1000	1880	--	--

<b>Biological limits</b>	No biological limit allocated.
<b>Engineering controls</b>	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/ explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

<b>PPE</b>	
<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear viton (R) or nitrile gloves.
<b>Body</b>	When using large quantities or where heavy contamination is likely, wear coveralls.
<b>Respiratory</b>	Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	CLEAR COLOURLESS LIQUID
<b>Odour</b>	ALCOHOLIC ODOUR
<b>Flammability</b>	HIGHLY FLAMMABLE
<b>Flash point</b>	13°C
<b>Boiling point</b>	78°C
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	7.0
<b>Vapour density</b>	1.6 (Air = 1)
<b>Specific gravity</b>	0.8
<b>Solubility (water)</b>	SOLUBLE
<b>Vapour pressure</b>	44 mm Hg @ 20°C
<b>Upper explosion limit</b>	19.0 %
<b>Lower explosion limit</b>	3.5 %
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE
<b>% Volatiles</b>	100 %

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## 10. STABILITY AND REACTIVITY

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<b>Chemical stability</b>	Stable under recommended conditions of storage.
<b>Conditions to avoid</b>	Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.
<b>Material to avoid</b>	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid), alkalis (eg. sodium hydroxide), heat and ignition sources.
<b>Hazardous Decomposition Products</b>	May evolve carbon oxides and hydrocarbons when heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Health Hazard Summary</b>	May be harmful - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Chronic exposure may result in cirrhosis of the liver. Over exposure may result in central nervous system (CNS) depression, with nausea, dizziness and unconsciousness at high levels.
<b>Eye</b>	Low to moderate irritant. Contact may result in irritation, lacrimation, pain and redness.
<b>Inhalation</b>	Low irritant. Over exposure to vapours may result in irritation of the nose and throat, with coughing. High level exposure may result in dizziness, nausea and headache.
<b>Skin</b>	Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis.
<b>Ingestion</b>	May be harmful. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, dizziness and unconsciousness. Chronic exposure may result in cirrhosis of the liver. Over exposure may cause central nervous system depression.

Product Name **METHO**

<b>Toxicity data</b>	ETHANOL (64-17-5)	
	LC50 (inhalation)	20000 ppm/10 hours (rat)
	LCLo (inhalation)	21900 ppm (guinea pig)
	LD50 (ingestion)	3450 mg/kg (mouse)
	LD50 (intraperitoneal)	3600 ug/kg (rat)
	LD50 (intravenous)	1440 mg/kg (rat)
	LD50 (subcutaneous)	8285 mg/kg (mouse)
	LDLo (ingestion)	1400 mg/kg (human)
	LDLo (intraperitoneal)	3000 mg/kg (dog)
	LDLo (intravenous)	1600 mg/kg (dog)
	LDLo (skin)	20 g/kg (rabbit)
	LDLo (subcutaneous)	19440 (infant)
	TCLo (inhalation)	20000ppm/7 hours (1-22 days pregnant rat - reproductive)
TDL0 (ingestion)	50 mg/kg (human)	

## 12. ECOLOGICAL INFORMATION

<b>Toxicity</b>	This substance may be hazardous to the environment.
<b>Persistence and degradability</b>	No information provided.
<b>Bioaccumulative potential</b>	No information provided.
<b>Mobility in soil</b>	No information provided.
<b>Other adverse effects</b>	If spilled on soil, ethanol will either evaporate or leach into the ground due to the relatively high vapour pressure and low adsorption in soil. It will biodegrade, probably to acetic acid and formaldehyde. Ethanol will volatilise from water and biodegrade, and is not expected to bioconcentrate. It will photodegrade in air with a half-life ranging from hours (polluted air) to days (clean air).

## 13. DISPOSAL CONSIDERATIONS

<b>Waste disposal</b>	For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<b>UN number</b>	1170	1170	1170
<b>Proper shipping name</b>	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)		
<b>DG class/ Division</b>	3	3	3
<b>Subsidiary risk(s)</b>	None Allocated	None Allocated	None Allocated
<b>Packing group</b>	II	II	II
<b>GTEPG</b>	3A1		
<b>Hazchem code</b>	•2YE		
<b>EMS</b>	F-E, S-D		

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**15. REGULATORY INFORMATION**

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Poison schedule	Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Inventory Listing(s)	<b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b> All components are listed on AICS, or are exempt.

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**16. OTHER INFORMATION**

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**Additional information** RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this 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.

**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 ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Revision history**

Revision	Description
1.1	Standard SDS Review
1.0	Initial SDS Creation

**Product Name**      **METHO**

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT 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, RMT 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.

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**End of SDS**