BOC
A Member of The Linde Group

SAFETY DATA SHEET

066

Product Name **METHYL CHLORIDE**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name	**BOC LIMITED (AUSTRALIA)**
Address	10 Julius Avenue, North Ryde, NSW, AUSTRALIA, 2113
Telephone	131 262, (02) 8874 4400
Fax	132 427 (24 hours)
Emergency	1800 653 572 (24/7) (Australia only)
Web Site	http://www.boc.com.au/
Synonym(s)	066 - SDS NUMBER • CHLOROMETHANE • PRODUCT CODE: 160 • R40
Use(s)	CALIBRATION • INDUSTRIAL APPLICATIONS
SDS Date	26 Mar 2010

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

RISK PHRASES

R11	Highly flammable.
R40	Limited evidence of a carcinogenic effect.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.

SAFETY PHRASES

S16	Keep away from sources of ignition - No smoking.
S33	Take precautionary measures against static discharges.
S9	Keep container in a well ventilated place.

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

UN No.	1063	**DG Class**	2.1	**Subsidiary Risk(s)**	None Allocated
Packing Group	None Allocated	**Hazchem Code**	2WE	**EPG**	2A4

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
METHYL CHLORIDE	C-H3-Cl	74-87-3	>99.5%

4. FIRST AID MEASURES

Eye Cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention.

Inhalation If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. Apply artificial respiration if not breathing. Give oxygen if available. For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.

Skin Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30°C) for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.

Ingestion Due to product form and application, ingestion is considered unlikely.

Advice to Doctor Treat symptomatically

5. FIRE FIGHTING MEASURES

Flammability Highly flammable. Heating to decomposition produces acrid smoke and irritating fumes. Product will add fuel to a fire. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights etc. when handling.

Fire and Explosion Temperatures in a fire may cause cylinders to rupture and internal pressure relief devices to be activated. Cool cylinders or containers exposed to fire by applying water from a protected location. Do not approach cylinders or containers suspected of being hot. This material is capable of forming explosive mixtures in air.

Extinguishing Stop flow of gas if safe to do so, such as by slowly closing the cylinder valve. If the gas source cannot be isolated, do not extinguish the flame, since re-ignition and explosion could occur. Await arrival of emergency services or manufacturer's advisor. Drench and cool cylinders with water spray from protected area at a safe distance. If it is absolutely necessary to extinguish the flame, use only a dry chemical powder extinguisher. Do not move cylinders for at least 24 hours. Avoid shock and bumps to cylinders.

Hazchem Code 2WE

6. ACCIDENTAL RELEASE MEASURES

Spillage If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Prevent spreading of vapours through drains and ventilation systems. Inform manufacturer/supplier of leak. Use personal protective equipment. Carefully move material to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder safety devices.

7. STORAGE AND HANDLING

Storage Do not store near sources of ignition or incompatible materials. Cylinders should be stored below 45°C in a secure area, upright and restrained to prevent cylinders from falling. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

Handling Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Do not drag, drop, slide or roll cylinders. The uncontrolled release of a gas under pressure may cause physical harm. Use a suitable hand truck for cylinder movement.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds METHYL CHLORIDE

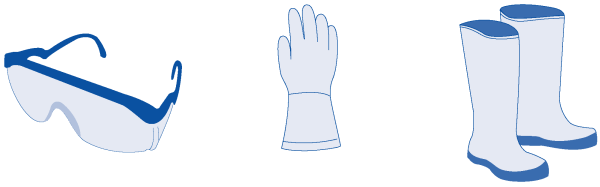
ES-STEL : 100 ppm (207 mg/m3)

ES-TWA: 50 ppm (103 mg/m3)

Biological Limits No biological limit allocated.

Engineering Controls Provide suitable ventilation to minimise or eliminate exposure. Confined areas (eg. tanks) should be adequately ventilated or gas tested. Flammable/ explosive vapours may accumulate in poorly ventilated areas. Maintain vapour levels below the recommended exposure standard.

PPE Wear safety boots, insulated or leather gloves and safety glasses. Where an inhalation risk exists, wear: an Air-line respirator or self Contained Breathing Apparatus (SCBA).



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	COLOURLESS LIQUID/GAS	**Solubility (Water)**	2.07 cm3/cm3
Odour	SLIGHT SWEET ODOUR	**Specific Gravity**	NOT APPLICABLE
pH	NOT APPLICABLE	**% Volatiles**	100 %
Vapour Pressure	580 kPa @ 25°C	**Flammability**	HIGHLY FLAMMABLE
Vapour Density	NOT AVAILABLE	**Flash Point**	NOT AVAILABLE

Boiling Point	-24.2°C	**Upper Explosion Limit**	17.4 %
Melting Point	NOT AVAILABLE	**Lower Explosion Limit**	8.1 %
Evaporation Rate	NOT APPLICABLE		
Critical Temperature	143.1°C	**Cylinder pressure (when full)**	6680 kPa
Density	1.78 (Air = 1)		

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended conditions of storage.

Conditions to Avoid Avoid heat, sparks, open flames and other ignition sources.

Material to Avoid Incompatible with moisture (evolving hydrochloric acid), oxidising agents (eg. hypochlorites), acids (eg. nitric acid), heat and ignition sources. Evolves spontaneously flammable aluminum trimethyl with aluminum and its alloys. Do not use natural rubber flexible hoses.

Decomposition Heating to decomposition produces acrid smoke and irritating fumes.

Hazardous Reactions Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Asphyxiant gas - toxic. Over exposure to concentrations of 1,000 ppm methyl chloride have resulted in depression of the central nervous system. Severe exposures have caused immediate and fatal effects. Mild prolonged intoxication may result in permanent injury of the heart muscles and the central nervous system, with a change of personality, depression, irritability and occasional visual and auditory hallucinations. Insufficient data to establish carcinogenic risk.

Eye Irritant vapour. Low temperature evaporating liquid can cause cold burns.

Inhalation Asphyxiant. Effects are proportional to oxygen displacement with symptoms of air hunger, rapid breathing, elevated heart rate, drowsiness and loss of mental alertness. High level exposure may result in incoordination, vomiting, mental instability, lung damage, convulsions, coma and death.

Skin Irritating vapour. Direct contact with the liquefied material or escaping compressed gas may cause frost-bite injury.

Ingestion Ingestion is considered unlikely due to product form. However, ingestion of liquid may result in burns to the mouth and throat.

Toxicity Data METHYL CHLORIDE (74-87-3)
LC50 (Inhalation): 2200 ppm/6 hours (mouse)
LCLo (Inhalation): 20000 ppm/2 hours (human)
LD50 (Ingestion): 1800 mg/kg (rat)

12. ECOLOGICAL INFORMATION

Environment Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Cylinders should be returned to the manufacturer or supplier for disposal of contents.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

Transport Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.

Product Name **METHYL CHLORIDE**

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

Shipping Name	METHYL CHLORIDE (REFRIGERANT GAS R 40)				
UN No.	1063	**DG Class**	2.1	**Subsidiary Risk(s)**	None Allocated
Packing Group	None Allocated	**Hazchem Code**	2WE	**EPG**	2A4

15. REGULATORY 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 The storage of significant quantities of gas cylinders must comply with AS4332 The storage and handling of gases in cylinders.

APPLICATION METHOD: Gas withdrawal: regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.

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 chemical Substances.
IARC - International Agency for Research on Cancer.
M - moles per litre, a unit of concentration.
mg/m3 - Milligrams per cubic metre.
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 Chem Alert 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 Chem Alert 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 document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer 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.

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.

Prepared By
Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794

Email: info@rmt.com.au
Web: www.rmt.com.au

SDS Date: 26 Mar 2010

End of Report