BOC
A Member of The Linde Group

SAFETY DATA SHEET

 # 1209

Product Name **GREATER THAN 0.28% METHYL BROMIDE BALANCE AIR**

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)	1209 - SDS NUMBER • PRODUCT CODES: 285, 288 • SPECIAL GAS MIXTURE
Use(s)	CALIBRATION • INDUSTRIAL APPLICATIONS
SDS Date	29 Mar 2010

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

RISK PHRASES

R20	Harmful by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.

SAFETY PHRASES

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S3/7/9	Keep container tightly closed in a cool, well ventilated place.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S44	If you feel unwell, contact a doctor or Poisons Information Centre immediately (show label where possible).

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

UN No.	1955	**DG Class**	2.3	**Subsidiary Risk(s)**	None Allocated
Packing Group	None Allocated	**Hazchem Code**	2RE	**EPG**	2B1

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
METHYL BROMIDE	C-H3-Br	74-83-9	1-5%
AIR	Not Available	Not Available	remainder

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). Apply artificial respiration if not breathing. Give oxygen if breathing is difficult. Seek immediate medical attention. 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 Non flammable. May evolve toxic gases (bromides, bromine) when heated to decomposition.

Fire and Explosion Temperatures in a fire may cause cylinders to rupture. Cool cylinders or containers exposed to fire by applying water from a protected location. Do not approach cylinders or containers suspected of being hot. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool. Ensure work area is thoroughly ventilated before re-entry.

Extinguishing Use water fog to cool containers from protected area.

Hazchem Code 2RE

6. ACCIDENTAL RELEASE MEASURES

Spillage If the cylinder is leaking, evacuate area of personnel. 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 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

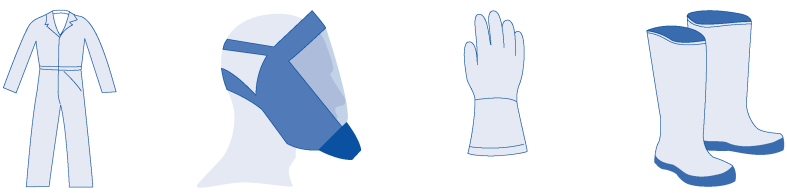
Exposure Stds

Ingredient	Reference	TWA		STEL	
		ppm	mg/m3	ppm	mg/m3
Methyl bromide	ASCC (AUS)	5	19	--	--

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. Maintain vapour levels below the recommended exposure standard.

PPE Wear safety boots, leather or rubber gloves, coveralls and an Air-line respirator or self Contained Breathing Apparatus (SCBA). Only experienced and properly trained people should use this product.



9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	COLOURLESS GAS	**Solubility (Water)**	0.0175 kg/kg (Methyl bromide)
Odour	ODOURLESS	**Specific Gravity**	NOT APPLICABLE
pH	NOT APPLICABLE	**% Volatiles**	100 %
Vapour Pressure	NOT AVAILABLE	**Flammability**	NON FLAMMABLE
Vapour Density	3.4 (Air = 1) (Methyl bromide)	**Flash Point**	NOT RELEVANT
Boiling Point	NOT AVAILABLE	**Upper Explosion Limit**	NOT RELEVANT
Melting Point	NOT AVAILABLE	**Lower Explosion Limit**	10 % (Methyl bromide)
Evaporation Rate	NOT APPLICABLE		
Critical Pressure	5220 kPa (Methyl bromide)	**Critical Temperature**	194°C (Methyl bromide)
Cylinder Pressure	13000 kPa @ 15°C		

10. STABILITY AND REACTIVITY

Material to Avoid Incompatible with oxidising agents (eg. hypochlorites), aluminum/aluminium alloys (forming spontaneously combustible aluminium trimethyl), heat and ignition sources. Slightly corrosive when moist. Also incompatible with zinc, magnesium and their alloys.

Decomposition May evolve toxic gases (bromides, bromine) when heated to decomposition.

Hazardous Reactions Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Toxic. Methyl bromide is absorbed through skin and causes damage to the central nervous system and lungs. Symptoms may be delayed up to 48 hours. Chloropicrin has severe lacrimating (tear making) effects. Chronic skin contact with liquid may result in burns and lesions. Nervous system injury is characterised by lethargy, muscular pains, visual, speech and sensory disturbances and mental confusion. More severe effects include tremors, hallucinations, fainting spells and seizures. Over exposure may result in liver, kidney and brain damage. Suspected carcinogen.

Eye Severe irritant. Contact may result in irritation, lacrimation, temporary blindness, conjunctivitis and oedema of the eyelids. Cold burns may be caused by evaporating liquid. Contact lenses should not be worn when using this product.

Inhalation Toxic. Over exposure may result in headache, fatigue, nausea and vomiting, listlessness, mental excitement and mania, disturbance of vision, uncoordination, dizziness, tremors and convulsions.

Skin Severe irritant. Contact with high concentrations of methyl bromide vapour or liquid produces tingling and burning sensation, followed by erythema, vesiculation and blister formation. Severe injuries occur if gas or liquid is trapped in gloves, boots or clothing.

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 BROMIDE (74-83-9)
LC50 (Inhalation): 302 ppm/8h (rat)
LCLo (Inhalation): 60000 ppm/2h (man)
LD50 (Ingestion): 214 mg/kg (rat)
LD50 (Skin): 135 mg/kg (subcutaneous, rat)
LDLo (Ingestion): 500 mg/kg (dog)
LDLo (Skin): 35 gm/m3/40M-I (human)
TCLo (Inhalation): 35 ppm (human)

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 foodstuffs.

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

Shipping Name	COMPRESSED GAS, TOXIC, N.O.S.				
UN No.	1955	**DG Class**	2.3	**Subsidiary Risk(s)**	None Allocated
Packing Group	None Allocated	**Hazchem Code**	2RE	**EPG**	2B1

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 7 (S7) Poison 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 regulator of suitable pressure and flow rating fitted to cylinder valve 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.

Product Name **GREATER THAN 0.28% METHYL BROMIDE BALANCE AIR**

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

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End of Report