

**SAFETY DATA SHEET**

# 2063

Product Name **LESS THAN 1.5% ACETYLENE BALANCE ARGON****1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Supplier name	<b>BOC LIMITED (AUSTRALIA)</b>
Address	10 Julius Avenue, North Ryde, NSW, 2113, AUSTRALIA
Telephone	131 262, (02) 8874 4400
Fax	132 427 (24 hours)
Emergency	1800 653 572 (24/7) (Australia only)
Web site	<a href="http://www.boc.com.au/">http://www.boc.com.au/</a>
Synonym(s)	2063 - MSDS NUMBER • PRODUCT CODES: 285, 288 • SPECIAL GAS MIXTURE
Use(s)	CALIBRATION • INDUSTRIAL APPLICATIONS
SDS date	01 February 2013

**2. HAZARDS IDENTIFICATION****CLASSIFIED AS HAZARDOUS (GHS) ACCORDING TO SAFE WORK AUSTRALIA CRITERIA****RISK PHRASES**

None allocated

**SAFETY PHRASES**

None allocated

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

UN number	1956	DG division	2.2
Packing group	None Allocated	Subsidiary risk(s)	None Allocated
Hazchem code	2TE		

**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

Ingredient	Identification	Classification	Content
ACETYLENE	CAS: 74-86-2 EC: 200-816-9	E;R5 E;R6 F+;R12	<1.5%
ARGON	CAS: 7440-37-1 EC: 231-147-0	Not Available	Remainder

**4. FIRST AID MEASURES**

<b>Eye</b>	None required.
<b>Inhalation</b>	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 available. For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor.
<b>Skin</b>	None required.
<b>Ingestion</b>	Due to product form and application, ingestion is considered unlikely.
<b>Advice to doctor</b>	Treat symptomatically.
<b>First aid facilities</b>	Eye wash facilities and safety shower are recommended.

**5. FIRE FIGHTING MEASURES**

<b>Flammability</b>	Non flammable.
<b>Fire and explosion</b>	Temperatures in a fire may cause cylinders to rupture. Cool cylinders or containers exposed to fire by applying water from a protected location. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool. Do not approach cylinders or containers suspected of being hot.
<b>Extinguishing</b>	Use water fog to cool containers from protected area.
<b>Hazchem code</b>	2TE
	2 Water Fog (or fine water spray if fog unavailable)
	T Self Contained Breathing apparatus and protective gloves.
	E Evacuation of people in the vicinity of the incident should be considered.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	If the cylinder is leaking, evacuate area of personnel. Inform manufacturer/supplier of leak. Use personal protective equipment as detailed in Section 8 of this SDS.
<b>Environmental precautions</b>	Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
<b>Methods of cleaning up</b>	Carefully move material to a well ventilated remote area, then allow to discharge if safe to do so. Do not attempt to repair leaking valve or cylinder safety devices.
<b>References</b>	See Sections 8 and 13 for exposure controls and disposal.

**7. STORAGE AND HANDLING**

<b>Storage</b>	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.
<b>Handling</b>	Use of safe work practices are recommended to avoid 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 standards**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Acetylene	SWA (AUS)			Asphyxiant	
Argon	SWA (AUS)			Asphyxiant	

**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.**PPE**

<b>Eye / Face</b>	Wear safety glasses.
<b>Hands</b>	Wear leather gloves.
<b>Body</b>	Wear safety boots.
<b>Respiratory</b>	Where an inhalation risk exists, wear Self Contained Breathing Apparatus (SCBA) or an Air-line respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	COLOURLESS GAS
Odour	GARLIC-LIKE ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT APPLICABLE
pH	NOT APPLICABLE
Vapour density	NOT AVAILABLE
Specific gravity	NOT APPLICABLE
Solubility (water)	0.94 cm <sup>3</sup> /cm <sup>3</sup> (Acetylene)
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Cylinder pressure (when full)	13000 kPa @ 15°C
% Volatiles	100 %

## 10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended conditions of storage.
Conditions to avoid	Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.
Material to avoid	Compatible with most commonly used materials. Acetylene can undergo exothermic decomposition to carbon (soot) and hydrogen gas. Acetylene can form explosive acetylide with unalloyed copper, silver, mercury, brasses containing more than 66% copper and brazing material containing copper and silver.
Hazardous Decomposition Products	This material will not decompose to form hazardous products.
Hazardous Reactions	Polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Asphyxiant gas. Symptoms of exposure are directly related to displacement of oxygen. As the amount of oxygen inhaled is reduced from 21-14% volume, the pulse rate may accelerate and the rate and volume of breathing may increase. The ability to maintain attention and think clearly is diminished, muscular co-ordination is somewhat disturbed. As oxygen decreases from 14-10% volume, judgement becomes faulty, severe injuries may result in no pain. Muscular effort may lead to rapid fatigue. Further reduction to 6% may result in nausea and vomiting. Ability to move may be lost. Permanent brain damage may result even after resuscitation from exposure to this low level of oxygen. Below 6% breathing is in gasps and convulsions may occur. Inhalation of a mixture containing no oxygen may result in unconsciousness from the first breath and death may follow in minutes.
Eye	Non irritant.
Inhalation	Asphyxiant. Effects are proportional to oxygen displacement. Acts as a simple asphyxiant by displacing oxygen in the lungs thereby diminishing the supply of oxygen to the blood and tissues.
Skin	Non irritant.
Ingestion	Ingestion is considered unlikely due to product form.
Toxicity data	ACETYLENE (74-86-2) LC <sub>50</sub> (inhalation) 50pph/5M (human) TC <sub>50</sub> (inhalation) 20 pph (human)

## 12. ECOLOGICAL INFORMATION

Toxicity	No information provided.
Persistence and degradability	No information provided.
Bioaccumulative potential	No information provided.

Mobility in soil No information provided.

Other adverse effects Product is not harmful to the environment.

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## 13. DISPOSAL CONSIDERATIONS

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

Legislation Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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

**LAND TRANSPORT  
(ADG)****SEA TRANSPORT  
(IMDG / IMO)****AIR TRANSPORT  
(IATA / ICAO)**

UN number	1956	-	-
Proper shipping name	COMPRESSED GAS, N.O.S.	-	-
DG class/ Division	2.2	-	-
Subsidiary risk(s)	None Allocated	-	-
Packing group	None Allocated	-	-
GTEPG	2C1		
Hazchem code	2TE		
Other information	Ensure cylinder is separated from driver and that outlet of relief device is not obstructed. Refer to Commonwealth, State and Territory Dangerous Goods Legislation which contain requirements which affect gas storage and transport.		

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## 15. REGULATORY INFORMATION

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Poison schedule	A poison schedule number has not been allocated to this product using the criteria in the 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	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 or manifold with low pressure gas distribution to equipment.
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**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
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
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
TLV	Threshold Limit Value
TWA/OEL	Time Weighted Average or Occupational Exposure Limit

## Revision history

Revision	Description
2.0	Standard SDS Review.
1.0	Initial SDS creation

## 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