

## SAFETY DATA SHEET

# 1110

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** LESS THAN 0.9% BUTANE(N) BALANCE AIR

**Synonym(s)** 1110 - SDS NUMBER • BOC LESS THAN 0.9% BUTANE(N) BALANCE AIR • LESS THAN 0.9% BUTANE BALANCE AIR • PRODUCT CODES: 285, 288

#### 1.2 Uses and uses advised against

**Use(s)** CALIBRATION • INDUSTRIAL APPLICATIONS

#### 1.3 Details of the supplier of the product

**Supplier name** BOC LIMITED (AUSTRALIA)

**Address** 10 Julius Avenue, North Ryde, NSW, 2113, AUSTRALIA

**Telephone** 131 262, (02) 8874 4400

**Fax** 132 427 (24 hours)

**Website** <http://www.boc.com.au>

#### 1.4 Emergency telephone number(s)

**Emergency** 1800 653 572 (24/7) (Australia only)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**GHS classification(s)** Gases Under Pressure: Compressed gas

#### 2.2 Label elements

**Signal word** WARNING

**Pictogram(s)**



#### Hazard statement(s)

H280 Contains gas under pressure; may explode if heated.

#### Prevention statement(s)

None allocated.

#### Response statement(s)

None allocated.

#### Storage statement(s)

P410 + P403 Protect from sunlight. Store in a well-ventilated place.

#### Disposal statement(s)

None allocated.

#### 2.3 Other hazards

Asphyxiant. Effects are proportional to oxygen displacement.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Substances / Mixtures

| Ingredient | CAS Number | EC Number | Content (v/v) |
|------------|------------|-----------|---------------|
| BUTANE     | 106-97-8   | 203-448-7 | <0.9%         |
| AIR        | -          | -         | >99.1%        |

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

|                      |   |
|----------------------|---|
| Eye                  | Adverse effects not expected from this product.   |
| Inhalation           | Adverse effects not expected from this product. For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor. |
| Skin                 | Adverse effects not expected from this product.   |
| Ingestion            | Due to product form and application, ingestion is considered unlikely.  |
| First aid facilities | No information provided.  |

#### 4.2 Most important symptoms and effects, both acute and delayed

Adverse effects not expected from this product under normal conditions of use.

#### 4.3 Immediate medical attention and special treatment needed

No special treatment required.

### 5. FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

All known extinguishants can be used. Use water fog to cool containers from a protected position.

#### 5.2 Special hazards arising from the substance or mixture

Non flammable. Exposure to fire may cause containers to rupture/explode.

#### 5.3 Advice for firefighters

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.

#### 5.4 Hazchem code

|     |   |
|-----|---|
| 2TE |   |
| 2   | Fine Water Spray.   |
| T   | Wear full fire kit and breathing apparatus. Dilute spill and run-off.                           |
| E   | Evacuation of people in and around the immediate vicinity of the incident should be considered. |

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

If the cylinder is leaking, evacuate area of personnel. Inform manufacturer/supplier of leak. Use Personal Protective Equipment (PPE) as detailed in Section 8 of the SDS.

#### 6.2 Environmental precautions

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

#### 6.3 Methods of cleaning up

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.

#### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

### 7. HANDLING AND STORAGE

**PRODUCT NAME LESS THAN 0.9% BUTANE(N) BALANCE AIR****7.1 Precautions for safe handling**

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.

**7.2 Conditions for safe storage, including any incompatibilities**

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.

**7.3 Specific end use(s)**

No information provided.

---

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

---

**8.1 Control parameters****Exposure standards**

| Ingredient | Reference | TWA |                   | STEL |                   |
|------------|-----------|-----|-------------------|------|-------------------|
|            |           | ppm | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |
| Butane     | SWA (AUS) | 800 | 1900              | --   | --                |

**Biological limits**

No biological limit values have been entered for this product.

**8.2 Exposure controls**

**Engineering controls** No special precautions are normally required when handling this product. Maintain vapour levels below the recommended exposure standard.

**PPE**

|                    |  |
|--------------------|--|
| <b>Eye / Face</b>  | Wear safety glasses.                         |
| <b>Hands</b>       | Wear leather gloves.                         |
| <b>Body</b>        | Wear safety boots.                           |
| <b>Respiratory</b> | Not required under normal conditions of use. |



---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**9.1 Information on basic physical and chemical properties**

|                                  |                |
|----------------------------------|----------------|
| <b>Appearance</b>                | COLOURLESS GAS |
| <b>Odour</b>                     | COAL GAS ODOUR |
| <b>Flammability</b>              | NON FLAMMABLE  |
| <b>Flash point</b>               | NOT RELEVANT   |
| <b>Boiling point</b>             | NOT AVAILABLE  |
| <b>Melting point</b>             | NOT AVAILABLE  |
| <b>Evaporation rate</b>          | NOT APPLICABLE |
| <b>pH</b>                        | NOT APPLICABLE |
| <b>Vapour density</b>            | NOT AVAILABLE  |
| <b>Specific gravity</b>          | NOT APPLICABLE |
| <b>Solubility (water)</b>        | INSOLUBLE      |
| <b>Vapour pressure</b>           | NOT AVAILABLE  |
| <b>Upper explosion limit</b>     | NOT AVAILABLE  |
| <b>Lower explosion limit</b>     | 0.9 %          |
| <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  |

**9.1 Information on basic physical and chemical properties**

|                      |               |
|----------------------|---------------|
| Oxidising properties | NOT AVAILABLE |
| Odour threshold      | NOT AVAILABLE |

**9.2 Other information**

|                               |                        |
|-------------------------------|------------------------|
| Critical pressure             | 3797 kPa (Butane)      |
| Cylinder pressure (when full) | 13000 kPa @ 15°C       |
| Density                       | 2.1 (Air = 1) (Butane) |
| % Volatiles                   | 100 %                  |
| Critical temperature          | 152°C                  |

---

**10. STABILITY AND REACTIVITY**

---

**10.1 Reactivity**

Unreactive under normal conditions.

**10.2 Chemical stability**

Stable under recommended conditions of storage.

**10.3 Possibility of hazardous reactions**

Polymerization will not occur.

**10.4 Conditions to avoid**

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

**10.5 Incompatible materials**

Compatible with most commonly used materials. This product is incompatible with natural rubber.

**10.6 Hazardous decomposition products**

This material will not decompose to form hazardous products.

---

**11. TOXICOLOGICAL INFORMATION**

---

**11.1 Information on toxicological effects**

|                          |   |
|--------------------------|---|
| Acute toxicity           | No known toxicological effects from this product. Based on available data, the classification criteria are not met. |
| Skin                     | Not classified as a skin irritant.  |
| Eye                      | Not classified as an eye irritant.  |
| Sensitization            | This product is not known to be a skin or respiratory sensitiser.   |
| Mutagenicity             | No evidence of mutagenic effects.   |
| Carcinogenicity          | No evidence of carcinogenic effects.  |
| Reproductive             | No evidence of reproductive effects.  |
| STOT – single exposure   | No known effects from this product.   |
| STOT – repeated exposure | No known effects from this product.   |
| Aspiration               | This product does not present an aspiration hazard.   |

---

**12. ECOLOGICAL INFORMATION**

---

**12.1 Toxicity**

No ecological damage is expected to be caused by this product.

**12.2 Persistence and degradability**

Not applicable.

**12.3 Bioaccumulative potential**

Not applicable.

PRODUCT NAME LESS THAN 0.9% BUTANE(N) BALANCE AIR

#### 12.4 Mobility in soil

Not applicable.

#### 12.5 Other adverse effects

No information provided.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

**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

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



|                             | LAND TRANSPORT<br>(ADG)                  | SEA TRANSPORT<br>(IMDG / IMO)            | AIR TRANSPORT<br>(IATA / ICAO)           |
|-----------------------------|--|--|--|
| 14.1 UN Number              | 1956                                     | 1956                                     | 1956                                     |
| 14.2 Proper Shipping Name   | COMPRESSED GAS, N.O.S.<br>(Contains air) | COMPRESSED GAS, N.O.S.<br>(Contains air) | COMPRESSED GAS, N.O.S.<br>(Contains air) |
| 14.3 Transport hazard class | 2.2                                      | 2.2                                      | 2.2                                      |
| 14.4 Packing Group          | None Allocated                           | None Allocated                           | None Allocated                           |

14.5 Environmental hazards No information provided

#### 14.6 Special precautions for user

Hazchem code 2TE

GTEPG 2C1

EMS F-C, S-V

**Other information** Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.

### 15. REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**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).

**Classifications** Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

**Hazard codes** None allocated.

**Risk phrases** None allocated.

**Safety phrases** None allocated.

**Inventory listing(s)** **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
All components are listed on AICS, or are exempt.

### 16. OTHER INFORMATION

**PRODUCT NAME LESS THAN 0.9% BUTANE(N) BALANCE AIR****Additional information**

The storage of significant quantities of gas cylinders must comply with AS4332 The storage and handling of gases in cylinders. The air in this product is described by the manufacturer as a mixture of oxygen and nitrogen.

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

**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   |
| EMS               | Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)                     |
| GHS               | Globally Harmonized System  |
| GTEPG             | Group Text Emergency Procedure Guide  |
| IARC              | International Agency for Research on Cancer   |
| LC50              | Lethal Concentration, 50% / Median Lethal Concentration   |
| LD50              | Lethal Dose, 50% / Median Lethal Dose   |
| mg/m <sup>3</sup> | Milligrams per Cubic Metre  |
| OEL               | Occupational Exposure Limit   |
| pH                | relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline). |
| ppm               | Parts Per Million   |
| 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          |
|----------|----------------------|
| 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.

**PRODUCT NAME    LESS THAN 0.9% BUTANE(N) 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](mailto:info@rmt.com.au)  
Web: [www.rmt.com.au](http://www.rmt.com.au).

**Revision: 2**

**SDS date:** 10 March 2015

**[ End of SDS ]**