

## SAFETY DATA SHEET

# 3038

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

Product name **LESS THAN 10% TETRAHYDROTHIOPHENE IN NITROGEN**

Synonym(s) 3038 - SDS NUMBER • SPECIAL GAS MIXTURE

#### 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 (GHS ONLY) 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)
NITROGEN	7727-37-9	231-783-9	Remainder
TETRAHYDROTHIOPHENE	110-01-0	203-728-9	<10%

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

Eye	Adverse effects not expected from this product.
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 available. For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.
Skin	Adverse effects not expected from this product.
Ingestion	Ingestion is not considered a potential route of exposure.
First aid facilities	None allocated.

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

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation.

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

Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

Use water fog to cool containers from protected area.

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

Non flammable.

#### 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

### 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 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>
Nitrogen	SWA (AUS)			Asphyxiant	

#### Biological limits

No biological limit values have been entered for this product.

### 8.2 Exposure controls

**Engineering controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. 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>	Where an inhalation risk exists, wear Self Contained Breathing Apparatus (SCBA) or an Air-line respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	COLOURLESS GAS
<b>Odour</b>	SLIGHT 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 RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE

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

Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

**9.2 Other information**

% Volatiles	100 %
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**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. Avoid heating cylinders.

**10.6 Hazardous decomposition products**

This material will not decompose to form hazardous products other than that already present.

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**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

**Acute toxicity** Based on available data, the classification criteria are not met.

**Information available for the ingredient(s):**

Ingredient	Oral Toxicity (LD50)	Dermal Toxicity (LD50)	Inhalation Toxicity (LC50)
TETRAHYDROTHIOPHENE	--	--	27 gm/m <sup>3</sup> /2 hours

<b>Skin</b>	Not classified as a skin irritant.
<b>Eye</b>	Not classified as an eye irritant.
<b>Sensitisation</b>	Not classified as causing skin or respiratory sensitisation.
<b>Mutagenicity</b>	Not classified as a mutagen.
<b>Carcinogenicity</b>	Not classified as a carcinogen.
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT - single exposure</b>	Asphyxiant. Effects are proportional to oxygen displacement. Over exposure may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.
<b>STOT - repeated exposure</b>	Not classified as causing organ damage from repeated exposure.
<b>Aspiration</b>	Not classified as causing aspiration.

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**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No ecological damage caused by this product. Nitrogen is the major component of the atmosphere (78 % v/v). It is a fairly unreactive gas and will not contribute to ozone depletion or global warming. If released to soil or water, nitrogen will quickly disperse to the atmosphere. Not toxic to plants or animals except at extremely high (asphyxiating) levels.

**12.2 Persistence and degradability**

No information provided.

**12.3 Bioaccumulative potential**

No information provided.

**12.4 Mobility in soil**

No information provided.

**12.5 Other adverse effects**

No information provided.

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## 13. DISPOSAL CONSIDERATIONS

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**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.

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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)
<b>14.1 UN Number</b>	1956	1956	1956
<b>14.2 Proper Shipping Name</b>	COMPRESSED GAS, N.O.S. (Contains nitrogen)	COMPRESSED GAS, N.O.S. (Contains nitrogen)	COMPRESSED GAS, N.O.S. (Contains nitrogen)
<b>14.3 Transport hazard class</b>	2.2	2.2	2.2
<b>14.4 Packing Group</b>	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. 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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**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

<b>Additional information</b>	<p>The storage of significant quantities of gas cylinders must comply with AS4332 The storage and handling of gases in cylinders.</p> <p><b>APPLICATION METHOD:</b> Gas regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.</p> <p><b>PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:</b> 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.</p> <p><b>HEALTH EFFECTS FROM EXPOSURE:</b> 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 report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.</p>																																										
<b>Abbreviations</b>	<table> <tr> <td data-bbox="433 965 506 988">ACGIH</td><td data-bbox="590 965 1231 988">American Conference of Governmental Industrial Hygienists</td></tr> <tr> <td data-bbox="433 990 506 1012">CAS #</td><td data-bbox="590 990 1464 1012">Chemical Abstract Service number - used to uniquely identify chemical compounds</td></tr> <tr> <td data-bbox="433 1015 506 1037">CNS</td><td data-bbox="590 1015 856 1037">Central Nervous System</td></tr> <tr> <td data-bbox="433 1042 506 1062">EC No.</td><td data-bbox="590 1042 1012 1062">EC No - European Community Number</td></tr> <tr> <td data-bbox="433 1066 506 1087">EMS</td><td data-bbox="590 1066 1420 1114">Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)</td></tr> <tr> <td data-bbox="433 1118 506 1138">GHS</td><td data-bbox="590 1118 899 1138">Globally Harmonized System</td></tr> <tr> <td data-bbox="433 1143 506 1163">GTEPG</td><td data-bbox="590 1143 1026 1163">Group Text Emergency Procedure Guide</td></tr> <tr> <td data-bbox="433 1167 506 1188">IARC</td><td data-bbox="590 1167 1071 1188">International Agency for Research on Cancer</td></tr> <tr> <td data-bbox="433 1192 506 1215">LC50</td><td data-bbox="590 1192 1201 1215">Lethal Concentration, 50% / Median Lethal Concentration</td></tr> <tr> <td data-bbox="433 1217 506 1239">LD50</td><td data-bbox="590 1217 1012 1239">Lethal Dose, 50% / Median Lethal Dose</td></tr> <tr> <td data-bbox="433 1242 506 1264">mg/m<sup>3</sup></td><td data-bbox="590 1242 871 1264">Milligrams per Cubic Metre</td></tr> <tr> <td data-bbox="433 1266 506 1289">OEL</td><td data-bbox="590 1266 899 1289">Occupational Exposure Limit</td></tr> <tr> <td data-bbox="433 1291 506 1374">pH</td><td data-bbox="590 1291 1453 1374">relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).</td></tr> <tr> <td data-bbox="433 1376 506 1399">ppm</td><td data-bbox="590 1376 769 1399">Parts Per Million</td></tr> <tr> <td data-bbox="433 1401 506 1423">STEL</td><td data-bbox="590 1401 880 1423">Short-Term Exposure Limit</td></tr> <tr> <td data-bbox="433 1426 506 1448">STOT-RE</td><td data-bbox="590 1426 1114 1448">Specific target organ toxicity (repeated exposure)</td></tr> <tr> <td data-bbox="433 1453 506 1473">STOT-SE</td><td data-bbox="590 1453 1074 1473">Specific target organ toxicity (single exposure)</td></tr> <tr> <td data-bbox="433 1477 506 1498">SUSMP</td><td data-bbox="590 1477 1260 1498">Standard for the Uniform Scheduling of Medicines and Poisons</td></tr> <tr> <td data-bbox="433 1502 506 1522">SWA</td><td data-bbox="590 1502 798 1522">Safe Work Australia</td></tr> <tr> <td data-bbox="433 1527 506 1547">TLV</td><td data-bbox="590 1527 823 1547">Threshold Limit Value</td></tr> <tr> <td data-bbox="433 1551 506 1574">TWA</td><td data-bbox="590 1551 847 1574">Time Weighted Average</td></tr> </table>	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 (high 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
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<b>Report status</b>	<p>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').</p> <p>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.</p> <p>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.</p>																																										

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