

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### 1.1 Product identifier

**Product name** NITROGEN  
**Synonym(s)** NSN: XXXX-66-110-2692  
AIR LIQUIDE NITROGEN • AIR LIQUIDE NITROGEN, COMPRESSED (N2) • AL188 - SDS NUMBER • ALIGAL • COMPRESSED NITROGEN • LASAL 1 • N2 • NITROGEN COMPRESSED

### 1.2 Uses and uses advised against

**Use(s)** AIR LINE LUBRICANT • ANALYTICAL CHEMISTRY • INDUSTRIAL APPLICATIONS • SHIELDING GAS

### 1.3 Details of the supplier of the safety data sheet

**Supplier name** AIR LIQUIDE AUSTRALIA  
**Address** Royal Domain Centre, 380 St. Kilda Rd, Melbourne, Victoria, Australia, 3004  
**Telephone** VIC (03) 9697 9888, NSW (02) 9892 9777  
**Fax** VIC (03) 9690 7170; NSW (02) 9892 1454; WA (08) 9330 8013  
**Email** ALWACST@airliquide.com  
**Website** <http://www.airliquide.com.au>

### 1.4 Emergency telephone number(s)

**Emergency** 1800 800 055, 1800 812 588

## 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

**Pictograms**



**Hazard statement(s)**

H280 Contains gas under pressure; may explode if heated.

**Storage statement(s)**

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

### 2.3 Other Hazards

No information provided.

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

### 3.1 Substances / Mixtures

Ingredient	CAS number	EC number	Content
NITROGEN	7727-37-9	231-783-9	100%

## 4. FIRST AID MEASURES

**Product name**                    **NITROGEN**

**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.  
**Skin**                                    Adverse effects not expected from this product.  
**Ingestion**                         Ingestion is not considered a potential route of exposure.  
**First aid facilities**                No information provided.

**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.

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**5. FIREFIGHTING 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**

2T  
     2            Fine Water Spray.  
     T            Wear full fire kit and breathing apparatus. Dilute spill and run-off.

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**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.

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**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.

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**7.3 Specific end use(s)**

No information provided.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

Substance	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**

- Eye/Face**                    Wear safety glasses.
- Hand**                        Wear leather gloves.
- Body**                        Wear safety boots.
- Respiratory**              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>	ODOURLESS
<b>Odour Threshold</b>	NOT AVAILABLE
<b>Flammability</b>	NON FLAMMABLE
<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	-196°C
<b>Melting Point</b>	-210°C
<b>Evaporation Rate</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Specific Gravity</b>	0.97
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour Density</b>	NOT AVAILABLE
<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
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive Properties</b>	NOT AVAILABLE
<b>Oxidising Properties</b>	NOT AVAILABLE

**9.2 Other information**

**% Volatiles**                    100 %

Product name            **NITROGEN**

Critical Temperature       -147°C

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## 10. STABILITY AND REACTIVITY

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### 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

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### 11.1 Information on toxicological effects

**Health Hazard**            No information provided.

**Summary**

No information provided.

No information provided.

No information provided.

No information provided.

No LD50 data available for this product.

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## 12. ECOLOGICAL INFORMATION

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### 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 Results of PBT and vPvB assessment

No information provided.

### 12.6 Other adverse effects

No information provided.

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**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 (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
<b>14.1 UN number</b>	1066	1066	1066
<b>14.2 UN proper shipping name</b>		NITROGEN, COMPRESSED	
<b>14.3 Transport hazard classes</b>			
<b>DG division</b>	2.2	2.2	2.2
<b>Subsidiary risk(s)</b>	None Allocated	-	-
<b>14.4 Packing group</b>	None Allocated	-	-
<b>14.5 Environmental hazards</b>		None Allocated	
<b>14.6 Special precautions for user</b>			
<b>Hazchem Code</b>	2T		
<b>EMS</b>		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**           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.

**15.2 Chemical safety assessment**

No information provided.

**16. OTHER INFORMATION**

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

**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

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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 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.

**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 (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

**Report Status**

This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research 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. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. 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 ChemAlert report, 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 ChemAlert report.

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Product name

**NITROGEN**

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**End of Report**