

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

Product Name: NITROGEN, FOOD GRADE

Synonyms: Nitrogen gas, N₂, Food Grade Nitrogen

Product Code: B4000

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses: Food processing, packaging, inerting, purging

Uses Advised Against: Not for medical or therapeutic use

1.3 Supplier Details

Supplier: Industrial Gases New Zealand Ltd t/a Eziswap Gas

Address: 6 and 10 Canaveral Drive, Rosedale, Auckland, NEW ZEALAND

Phone: +64 9 444 0357

Email: sales@eziswapgas.co.nz

Website: <http://www.eziswapgas.co.nz>

1.4 Emergency Telephone Number

Emergency Telephone (NZ Only): 111

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

- Gases under pressure – Compressed gas
- Simple asphyxiant (may displace oxygen at high concentrations)

2.2 GHS Label Elements

Signal Word: WARNING

Pictogram:



Hazard Statements

- H280: Contains gas under pressure; may explode if heated

Precautionary Statements

- P103: Read label before use
- P410 + P403: Protect from sunlight. Store in a well-ventilated place

2.3 Other Hazards

- In high concentrations may cause asphyxiation
- Contact with rapidly expanding gas may cause cold burns

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	CAS Number	EC Number	Content (v/v)
Nitrogen	7727-37-9	231-783-9	>99.5%

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

- **Inhalation:** Remove to fresh air. Provide oxygen or artificial respiration if needed. Seek medical attention.
- **Skin Contact:** In case of cold burns, rinse with lukewarm water. Do not rub.
- **Eye Contact:** Rinse with water if irritation occurs.
- **Ingestion:** Not applicable

4.2 Most Important Symptoms and Effects

- Dizziness, headache, unconsciousness (due to oxygen displacement)
- Frostbite symptoms in case of contact with liquefied gas

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

- Treat symptomatically for oxygen deficiency and cold exposure
- Ensure responders wear SCBA if necessary

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Non-flammable. Use extinguishing media appropriate for surrounding fire.

5.2 Special Hazards Arising from the Substance

- Cylinders may rupture under fire conditions
- May displace oxygen in enclosed or poorly ventilated areas

5.3 Advice for Firefighters

- Use SCBA and full protective clothing
- Cool cylinders with water spray
- Evacuate area if leaking or involved in fire

5.4 Hazchem Code

2T

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Evacuate area
- Ensure adequate ventilation
- Use SCBA in confined or low oxygen spaces

6.2 Environmental Precautions

- Not environmentally hazardous
- Avoid release in enclosed or poorly ventilated areas

6.3 Methods and Materials for Containment and Clean-Up

- Stop leak if safe to do so
- Vent gas to open air

6.4 Reference to Other Sections

See Sections 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Use only with equipment rated for compressed gases
- Avoid handling with greasy or oily hands
- Do not drop cylinders or allow physical damage

7.2 Conditions for Safe Storage, Including Any Incompatibilities

- Store in a well-ventilated place below 45°C
- Keep cylinders upright, secured, and with valve caps in place
- Keep away from heat and ignition sources

7.3 Specific End Use(s)

Used in food-grade applications such as processing and inert packaging

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters (Workplace Exposure Standards - NZ WES 2022)

- **Nitrogen:** No occupational exposure limits assigned

8.2 Exposure Controls

- **Engineering Controls:** Use in well-ventilated areas
- **Personal Protective Equipment (PPE):**
 - **Eye Protection:** Safety goggles should be worn when handling cylinders or if there is a risk of splashing or cold gas contact
 - **Skin Protection:** Wear insulated gloves if handling cold gas
 - **Respiratory Protection:** SCBA in case of low oxygen environment



9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Colourless, odourless gas
Boiling Point	-195.8°C
Vapour Pressure	Not applicable
Vapour Density (Air=1)	0.97
Flammability	Non-flammable
Solubility in Water	Slight
Critical Temperature	-147°C

10. STABILITY AND REACTIVITY

10.1 Reactivity

Inert gas – non-reactive under normal conditions

10.2 Chemical Stability

Stable at ambient conditions

10.3 Possibility of Hazardous Reactions

None under normal use

10.4 Conditions to Avoid

Extreme heat, confined spaces, poor ventilation

10.5 Incompatible Materials

None

10.6 Hazardous Decomposition Products

None

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity:** Not toxic
- **Inhalation:** Can displace oxygen and cause suffocation
- **Skin/Eye Contact:** May cause frostbite in contact with cold gas
- **Chronic Effects:** None known

12. ECOLOGICAL INFORMATION

- **Ecotoxicity:** Not classified as hazardous
- **Persistence and Degradability:** Will dissipate in the atmosphere
- **Bioaccumulation:** Not applicable
- **Mobility:** High
- **Other Adverse Effects:** None

13. DISPOSAL CONSIDERATIONS

- **Product:** Vent slowly to a well-ventilated area
- **Container:** Return cylinders to supplier
- Do not incinerate or puncture

14. TRANSPORT INFORMATION

Mode	UN Number	Proper Shipping Name	Class	Packing Group	Hazchem	EMS
Land	UN1066	Nitrogen, Compressed	2.2	Not applicable	2T	—
Sea (IMDG)	UN1066	Nitrogen, Compressed	2.2	Not applicable	2T	F-C, S-V
Air (IATA)	UN1066	Nitrogen, Compressed	2.2	Not applicable	—	—

Additional Notes:

- Classified as a Dangerous Good under NZS 5433, IMDG, and IATA
- Hazard Label:



- Ensure valve protection during transport

15. REGULATORY INFORMATION

- **HSNO Approval Code:** HSR001027
- **Group Standard:** Nitrogen
- **Inventory Status:** Listed on NZIoC (New Zealand Inventory of Chemicals)

16. OTHER INFORMATION

- This SDS has been prepared in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017 and GHS 7
- For food use only — not suitable for medical or therapeutic applications
- Store and handle in accordance with NZ food safety and HSNO requirements
- Revision Date: June 2025