



MATERIAL SAFETY DATA SHEET

1. Identification of the Material and Supplier

Product/Trade Name: INOmax® (Nitric Oxide for Inhalation)

Other Names: Inhaled Nitric Oxide

Chemical Name: Nitric Oxide; Nitrogen Monoxide; NO

Chemical Family: Nitrogen Oxides

Product Use Description: Medical application as per approved therapeutic uses

Supplier: INO Therapeutics
1060 Allendale Dr.
Port Allen, LA 70767
United States

Australian Distributor: BOC Limited
10 Julius Avenue
North Ryde, NSW 2113
Australia

Customer Service: 1800 658 278 (Australia)

Emergency Telephone: 1800 653 572 (Australia)

For more Information: INO Therapeutics
6 Route 173
Clinton, NJ 08809
+1 908 238-6600

2. Hazards Identification

Hazard Classification

DANGEROUS GOOD: Dangerous goods classification according to the Australian Dangerous Goods Code.

NON-HAZARDOUS SUBSTANCE: Hazard classification according to the criteria of NOHSC.



Medical Conditions Generally Aggravated by Exposure

Asthmatics and those with respiratory illness should avoid handling these products.

Emergency Overview

High Pressure Gas.

Can cause rapid suffocation.

Self-contained breathing apparatus (SCBA) may be required.

Potential Health Effects

Eyes:	May cause irritation and redness.
Skin:	N/A
Inhalation:	Simple asphyxiation from nitrogen is the greatest hazard. Exposure to high concentrations of NO may cause methemoglobinemia and delayed lung damage.
Ingestion:	N/A product is a gas
Chronic:	Lung damage from repeatedly over-exposures
Primary Routes of entry:	Inhalation
Target Organs:	Respiratory tract
Symptoms:	Exposure to oxygen deficient atmosphere may cause the following symptoms: Dizziness. Salivation. Nausea. Vomiting. Loss of mobility/consciousness.
Environmental Effects:	None

3. Composition/Information on Ingredients

Component / (CAS Number) / proportion

Nitric Oxide / (10102-43-9) / $\leq 1.0\%$

Nitrogen / (7727-37-9) / $\geq 99\%$

4. First Aid Measures

General Advice:

Remove victim to uncontaminated area wearing self-contained breathing apparatus. Apply artificial respiration if breathing stopped.



Eye Contact:

Flush with copious amounts of water for at least 15 minutes. Seek medical attention.

Skin:

N/A

Inhalation:

Remove person to fresh air. Administer artificial respiration or CPR as needed. Seek medical attention for severe dizziness or unconsciousness. Monitor for 72 hours to ensure no delayed lung damage (pulmonary edema) occurs. Administer emergency oxygen.

Ingestion:

N/A

5. Fire Fighting Measures

Suitable Extinguishing Media:

All known extinguishing media can be used

Specific Hazards:

Upon exposure to intense heat of flame, cylinder will vent rapidly and or rupture violently. Keep cylinders cool by spraying with large amounts of water until fire burns itself out.

Special Protective Equipment for Firefighters:

Use self-contained breathing apparatus.

Specific Hazards Hazchem Code:

2T



6. **Accidental Release Measures**

Emergency Procedures:

Evacuate personnel to safe areas. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Monitor oxygen level. Ventilate the area.

Environmental Precautions:

Do not discharge into any place where accumulation could be dangerous. Prevent further leakage if safe to do so.

Methods for Cleaning Up:

Ventilate the area. Return cylinder to manufacturer for disposal.

7. **Handling and Storage**

Only experienced and properly instructed persons should handle compressed gases. Do not drag, slide, or roll cylinders. Use a suitable hand truck for movement.

Store cylinders according to relevant State and/or Federal Dangerous Goods Legislation

Store cylinders in a well ventilated area. Store upright, and firmly secure to prevent from falling or being knocked over. Store away from heavily trafficked areas. Do not store in emergency exits or stairwells.

Technical Measures/Precautions:

Containers should be segregated in storage area according to the various categories (e.g. flammable, toxic, etc.) and in accordance with local regulations. Keep away from combustible material.

8. **Exposure Control/Personal Protection**

National Exposure Standards:

Nitrogen (7727-37-9) ES-TWA: Asphyxiant

Nitric Oxide (10102-43-9) ES-TWA: 25 ppm

**Engineering Measures:**

Provide natural or mechanical ventilation to prevent oxygen deficient atmosphere. Oxygen deficient atmosphere being anything below 19.5% oxygen.

Personal Protection:

Respiratory protection is not needed for routine handling in well-ventilated areas. For a large release in poorly ventilated area, wear self-contained breathing apparatus.

Ventilation:

General ventilation is adequate

Skin:

Impervious glove recommended

Eyes:

Eye protection recommended. Eye wash stations should be provided.

Other:

Safety shoes for cylinder handling.

9. Physical and Chemical Properties

Form:	Compressed Gas
Color:	Colorless Gas
Odor:	Odorless Gas
Molecular Weight:	28.015 grams per mole
Relative Vapor Density:	0.97 (air = 1)
Density:	1.25 kilograms per cubic meter
Specific Volume:	0.8 cubic meter per gram
Boiling Point/Range:	N/A
Critical Temperature:	126 K
Melting Point/Range:	N/A
Water Solubility:	N/A



10. Stability and Reactivity

Stability:

Stable under normal conditions.

Hazard Decomposition Products

Oxidizes in air to form nitrogen dioxide.

11. Toxicological Information

Ingestions: N/A

Inhalation: N/A

Skin: N/A

Nitric Oxide (10102-43-9) LC50 (Inhalation): 1068 mg/m³/4 hours (rat)

12. Ecological Information

Ecotoxicity Effects

Aquatic Toxicity: N/A

Toxicity to Other Organisms: N/A

Persistence and Degradability

Mobility: N/A

Bioaccumulation: N/A

13. Disposal Considerations

Do not attempt to dispose of residual/unused quantities. Return shipping container to INO Therapeutics for proper disposal.



14. Transport Information

UN Number.	1956
Proper Shipping Name:	Compressed gas, N.O.S. (Nitric Oxide, Nitrogen)
Class:	2.2
Hazchem Code	2T

IATA:

Proper Shipping Name:	Compressed gas, N.O.S. (Nitric Oxide, Nitrogen)
Class:	2.2
UN/ID No.	1956

15. Regulatory Information

Poison Schedule:

Not Scheduled

16. Other Information:

Emergency Telephone:	1800 653 572 (Australia)
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The information contained in this Material Safety Data Sheet is based on the best data currently available to us, and is believed to be accurate. However, no warranty, expressed or implied, is made with respect to the accuracy or completeness of this information, or the results obtained from its use. It is the responsibility of the product users to determine the proper conditions for handling use, storage, and disposal of material in their own operations.

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