Leeden NOX
Leeden National Oxygen Ltd

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name : **Helium and Nitrogen Balance**

Chemical Family : **Inert Gases Mixture**

Manufacturer : **Leeden National Oxygen Ltd**
21 Tanjong Kling Road
Singapore 628047

Emergency Phone Number : +65 6265 0406

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CHEMICAL FORMULA	CAS #	MOLE %	EXPOSURE LIMITS IN AIR			
				ACGIH-TLV		OSHA-STEL	
				TWA ppm	STEL ppm	TWA ppm	STEL ppm
Nitrogen	N2	7727-37-9	95	No specific exposure limits for Nitrogen.			
Helium	He	7440-59-7	5	Non established (simple asphyxiant)	Non established (simple asphyxiant)	Non established	Non established

3. HAZARD IDENTIFICATION

Physical Hazards :
Compressed Gas
Inhalation Hazard :
Mixture acts as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death.

4. FIRST – AID MEASURES

Inhalation :
Immediately remove victim to fresh air. If breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Get Immediate medical attention.
Skin Contact
Wash with water for at least 15 minutes while removing contaminated clothing.
Seek Immediate medical attention.
Eye Contact :
Flush eyes with plenty of water for at least 15 minutes. Seek Immediate medical attention.
Ingestion :
Seek Immediate medical attention.

5. FIRE-FIGHTING MEASURES

Fire and explosion Hazards :
Nonflammable Gas.
Container may rupture or explode if exposed to heat.
Flammable Limits: vol % in air at 1 atm
Lower :
Upper :

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Fire Extinguishing Materials :
Carbon dioxide, regular dry chemical.
Fire Fighting
Cool containers with water spray until well after fire is out. Stay away from ends of tanks. Stop flow of gas.

6. ACCIDENTAL RELEASE MEASURES

Occupational release :
Uncontrolled releases should be responded to by trained personnel using pre-planned procedures.
Use proper protective equipment in the event of a significant release from cylinder.
Stop leak if possible without personal risk.
Water Release :
Collect spilled material using mechanical equipment. Keep out of water supplies and sewers.
Soil Release :
Absorb spilled material using suitable absorbents. Contact skilled party to remove contaminated materials.

7. HANDLING and STORAGE

HANDLING:
Operators should wear protective clothing while handling this gas. If ventilation controls are not adequate to provide sufficient oxygen content, proper respiratory protection equipment should be provided.
STORAGE:
Cylinders should be stored upright and be secured firmly to prevent falling.
Protect cylinders against extreme weather and from dampness from ground to prevent rusting.
Stored cylinders in well ventilated area, away from direct heat and ignition source.
Do not allow area where cylinders are stored to exceed 52°C.

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

Engineering Control : Provide adequate general and local exhaust ventilation to maintain concentration below exposure limits and to avoid asphyxiation.
Ventilation : Provide local exhaust ventilation system. Ensure compliance with applicable exposure limit .
Eye Protection : Eye protection recommended.
Provide emergency eye wash fountain and quick drench shower in immediate work area
Respirator : Under conditions of frequent use or exposure, respiratory protection may be needed.

9. PHYSICAL and CHEMICAL PROPERTIES

GENERAL INFORMATION:

Physical State :	Gas
Molecular weight :	28.01
Vapor Pressure :	150 Bar
Appearance, odor and color :	Color : Colorless Odor : Odorless

10. STABILITY and REACTIVITY

STABILITY: Stable at standard temperatures within shelf-life.
REACTIVITY: Consider as non-reactive. Avoid incompatible materials.
CONDITIONS TO AVOID : Cylinders exposed to high temperatures or direct flame can rupture or burst.

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11. TOXICOLOGICAL INFORMATION

No toxicity data is available

12. ECOLOGICAL INFORMATION

Fish Toxicity : Not available

Invertebrate Toxicity: Not available

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL:
Waste disposal must be in accordance with appropriate local regulations.
Never attempt to dispose off residual locally, return cylinders with residual to gas suppliers.

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	**Compressed Gas, N.O.S.**
HAZARD CLASS:	**2.2 (Nonflammable)**
UN NUMBER:	**UN 1956**

15. REGULATORY INFORMATION

End users are required to have license to purchase, store and use according to local NEA regulations.
Disposal of the materials are required to adhere to environmental public health (toxic Industrial Waste) Regulations.
Regulated chemicals can be found on the NEA website .

16. OTHER INFORMATION

When two or more gases or liquefied gases are mixed, their hazardous properties may combine to create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce and use the mixture. Consult an Industrial Hygienist or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

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