

Material Safety Data Sheet

Product Name: Nitrogen, Compressed

Trade Name: Nitrogen

Chemical Name: Nitrogen **Synonyms:** Not applicable

Formula: N₂ **Chemical**

Family:

Considered as an inert gas.

Company Name

**M/S NATIONAL OXYGEN LIMITED
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INGREDIENT NAME	I. S. NO.	PERCENTAGE	OSHA PEL	ACGIH TLV-TWA
Nitrogen	1747 : 1972	>99%	None currently established	Simple asphyxiant

3. Hazards Identification

EMERGENCY OVERVIEW

CAUTION! High-pressure gas.

Can cause rapid suffocation.

May cause dizziness and drowsiness.

Self-contained breathing apparatus may be required by rescue workers.

Odor: None

4. First Aid Measures

EFFECTS OF A SINGLE (ACUTE) OVEREXPOSURE:

INHALATION–Asphyxiant. Effects are due to lack of oxygen. Moderate concentrations may cause

headache, drowsiness, dizziness, excitation, excess salivation, vomiting, and unconsciousness.

Lack of

oxygen can kill.

SKIN CONTACT–No harm expected.

SWALLOWING–This product is a gas at normal temperature and pressure.

EYE CONTACT–No harm expected.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: No harm expected.

OTHER EFFECTS OF OVEREXPOSURE: Nitrogen is an asphyxiant. Lack of oxygen can kill.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: The toxicology and the physical

and chemical properties of nitrogen suggest that overexposure is unlikely to aggravate existing medical conditions.

qualified personnel may give oxygen. Call a physician.

NOTES TO PHYSICIAN: *There is no specific antidote. This product is nearly inert. Treatment of overexposure should be directed at the control of symptoms and the clinical condition. Refer to section 16*

5. Fire Fighting Measures

FLASH POINT (test method) Not applicable

AUTOIGNITION Not applicable

TEMPERATURE

FLAMMABLE LIMITS

IN AIR, % by volume LOWER Not applicable

UPPER Not applicable

EXTINGUISHING MEDIA: Nitrogen cannot catch fire. Use media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES:

CAUTION! High-pressure gas. Evacuate all personnel from danger area. Immediately deluge cylinders

with water from maximum distance until cool, then move them away from fire area if without risk.

Self-contained breathing apparatus may be required by rescue workers.

HAZARDOUS COMBUSTION PRODUCTS: None known

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

CAUTION! High-pressure gas. Immediately evacuate all personnel from danger area. Nitrogen is an

asphyxiant. Lack of oxygen can kill. Use self-contained breathing apparatus where needed. Shut off flow if

you can do so without risk. Ventilate area or move cylinder to a well-ventilated area. Test for sufficient

oxygen, especially in confined spaces, before allowing reentry.

WASTE DISPOSAL METHOD: Prevent waste from contaminating the surrounding environment. Keep

personnel away. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations. If necessary, call

your local

supplier for assistance.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store and use with adequate ventilation.

Firmly

secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly

in place by hand. Store only where temperature will not exceed 125°F (52°C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

PRECAUTIONS TO BE TAKEN IN HANDLING: Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier.

9. Physical and Chemical Properties

MOLECULAR WEIGHT: 28.01 **EXPANSION RATIO:** Not applicable

SPECIFIC GRAVITY (air=1): At 70°F (21.1°C) and 1 atm: 0.967

SOLUBILITY IN WATER: % by wt., vol/vol at 32°F (0°C): 0.023

GAS DENSITY: At 70°F (21.1°C) and 1 atm: 0.072 lbs/ft³ (1.153 kg/m³)

VAPOR PRESSURE: AT 68°F (20°C): Not applicable

BOILING POINT (1 atm): -320.4°F (-195.8°C)

MELTING POINT (1 atm): -345.8°F (-209.9°C)

APPEARANCE, ODOR, AND STATE: Colorless, odorless, tasteless gas at normal temperature and pressure.

STABILITY: Unstable Stable X

INCOMPATIBILITY (materials to avoid): None currently known. Nitrogen is chemically inert.