

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nitrogen

Product Use: Industrial gas for various applications

Company Name: Indo-Ghana Industries Ltd

Address: B-6158 Dadeban Rd. North Industrial Area, Accra, Ghana

Emergency Contact: 054 431 3876

Telephone Number: 054 431 3876

Date of Preparation: 12/9/2023

SECTION 2: HAZARDS IDENTIFICATION

Nitrogen is generally considered non-hazardous under normal conditions. However, asphyxiation can occur in oxygen-deficient environments.

Emergency Overview:

- Physical state: Gas

- Color: Colorless

- Odor: Odorless
- Warning Properties: None

Potential Health Effects:

- Inhalation: Nitrogen is generally non-toxic; however, it displaces oxygen and can lead to asphyxiation in confined spaces with inadequate ventilation.

Potential Physical Hazards:

- Nitrogen gas can displace oxygen in confined spaces, leading to oxygen deficiency.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Name: Nitrogen (N₂)

**CAS Number: 7727-37-9

**Chemical Formula: N₂

SECTION 4: FIRST AID MEASURES

Inhalation:

- If breathing difficulties occur, remove to fresh air immediately.
- Seek medical attention if symptoms persist.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability:

- Nitrogen is non-flammable.

Extinguishing Media:

- Use suitable extinguishing agents appropriate for surrounding materials.

Fire Fighting Instructions:

- Firefighters should use standard protective equipment and self-contained breathing apparatus (SCBA) when handling fires involving nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

- Evacuate the area if oxygen levels are reduced.
 - Ventilate the area to restore normal oxygen levels.
 - Use appropriate personal protective equipment (PPE) when entering oxygen-deficient areas.
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SECTION 7: HANDLING AND STORAGE

Handling Precautions:

- Ensure proper ventilation when working with nitrogen in enclosed spaces.
- Store and handle nitrogen cylinders in a cool, dry, well-ventilated area.

Storage Recommendations:

- Store nitrogen cylinders upright and securely.
 - Keep away from sources of heat and ignition.
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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

- Ensure proper ventilation in areas where nitrogen is used.
- Use gas detection equipment in confined spaces to monitor oxygen levels.

Personal Protective Equipment (PPE):

- Eye/Face Protection: Safety goggles or a face shield.
 - Skin Protection: No specific protective clothing required.
 - Respiratory Protection: Use an appropriate respirator if oxygen levels are reduced.
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Gas

Color: Colorless

Odor: Odorless

Boiling Point: -195.8°C (-320.4°F)

Melting Point: -210.01°C (-346.02°F)

Density: 0.808 g/L at 0°C (32°F) and 1 atm

SECTION 10: STABILITY AND REACTIVITY

Stability: Nitrogen is stable under normal conditions.

Reactivity:

- Nitrogen is not reactive with most materials under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Data:

- Nitrogen is not considered toxic under normal conditions.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Effects:

- Nitrogen is an inert gas and is not expected to have significant environmental effects.
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SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:

- Nitrogen gas cylinders should be returned to a qualified gas supplier or recycling facility for proper disposal or recycling.
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SECTION 14: TRANSPORT INFORMATION

****UN Number**:** 1066

****Shipping Name**:** Nitrogen, Compressed

SECTION 15: REGULATORY INFORMATION

Regulatory Information:

Nitrogen is subject to various local, national, and international regulations. Ensure compliance with all applicable laws and regulations.

SECTION 16: OTHER INFORMATION

This Material Safety Data Sheet (MSDS) is provided for informational purposes only and should not be considered as a warranty or guarantee regarding the product's properties or suitability for a particular purpose. Users of this product are responsible for ensuring compliance with all applicable regulations and standards.

END OF MSDS

Please note that this MSDS provides general information and safety precautions for handling nitrogen. It is essential to comply with local safety regulations and conduct a thorough hazard assessment specific to your workplace and processes.