
Material Safety Data Sheet (MSDS)

Product Name: Ammonia Gas

Product Use: Chemical manufacturing and industrial applications

Company Identification

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

Hazard Identification

Emergency Overview:

Ammonia Gas is a colorless gas with a pungent, suffocating odor. It poses health hazards when inhaled or exposed to the skin or eyes. Exposure to high concentrations can be immediately dangerous to life and health.

Potential Health Effects:

- Inhalation: Inhalation of ammonia vapors can cause irritation of the respiratory tract, coughing, and difficulty breathing. Prolonged exposure to high concentrations can lead to lung damage and even death.
- Skin Contact: Contact with liquid ammonia can cause severe skin burns and frostbite. It may also lead to irritation and redness.
- Eye Contact: Contact with ammonia can cause severe eye irritation, redness, and damage to the cornea.
- Ingestion: Ingestion is unlikely due to the strong odor and taste; however, if ingested, it can be harmful.

Composition / Information on Ingredients

Ammonia Gas (NH₃): 100%

CAS Number: 7664-41-7

First Aid Measures

Inhalation:

- Move the affected person to fresh air immediately.
- If breathing difficulties persist, seek immediate medical attention.

Skin Contact:

- Remove contaminated clothing and rinse the affected area with plenty of water for at least 15 minutes.
- Seek medical attention for severe burns or frostbite.

Eye Contact:

- Flush eyes with gently flowing water for at least 15 minutes while holding eyelids open.
- Seek immediate medical attention.

Ingestion:

- Rinse the mouth with water and seek medical attention immediately.

Fire-Fighting Measures

Extinguishing Media:

- Use dry chemical, CO₂, or water spray to extinguish fires involving ammonia gas.
- Do not use water jets.

Firefighting Instructions:

- Wear appropriate protective equipment and self-contained breathing apparatus (SCBA).
- Evacuate the area if the ammonia leak cannot be controlled.

Accidental Release Measures

- Evacuate the area immediately.
- Ventilate the area to disperse the gas.
- Wear appropriate protective equipment, including respiratory protection.
- Prevent entry into contaminated areas.
- Contain and collect the leaked gas using non-sparking tools.
- Dispose of collected material in accordance with local regulations.

Handling and Storage

Handling:

- Use ammonia gas in a well-ventilated area.
- Use appropriate personal protective equipment, including goggles, gloves, and a lab coat.
- Avoid contact with skin, eyes, and clothing.
- Do not eat, drink, or smoke while handling ammonia.

Storage:

- Store ammonia cylinders in a cool, dry, well-ventilated area, away from direct sunlight and incompatible materials.
 - Keep ammonia cylinders upright and secured to prevent tipping or falling.
 - Store ammonia cylinders away from sources of ignition.
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Exposure Controls / Personal Protection

Engineering Controls:

- Use local exhaust ventilation to maintain ammonia gas concentrations below permissible exposure limits.

Personal Protective Equipment:

- Respiratory Protection: Use an approved gas mask or self-contained breathing apparatus (SCBA) when working with ammonia gas.
 - Eye Protection: Wear chemical splash goggles or a face shield.
 - Skin Protection: Wear chemical-resistant gloves and a lab coat.
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Physical and Chemical Properties

- Appearance: Colorless gas

- Odor: Pungent, suffocating
 - Molecular Weight: 17.03 g/mol
 - Melting Point: -77.7°C (-107.8°F)
 - Boiling Point: -33.3°C (-27.9°F)
 - Specific Gravity: 0.682 (Air = 1)
 - Vapor Pressure: 8.57 atm at 20°C
 - Solubility in Water: Miscible
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Stability and Reactivity

- Ammonia gas is stable under normal conditions.
 - It may react violently with strong oxidizing agents and acids.
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Environmental Precautions

- Prevent ammonia gas releases into the environment.
 - Report any spills or releases to the appropriate regulatory authorities.
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Disposal Considerations

- Dispose of ammonia gas cylinders in accordance with local, state, and national regulations.
- Consult with a qualified waste disposal company for proper disposal methods.

Transportation Information

- Comply with all applicable transportation regulations for the shipment of ammonia gas cylinders.

Regulatory Information

- This product may be subject to regulation by local, state, or national authorities.
 - Consult applicable regulations for specific requirements.
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Other Information

This Material Safety Data Sheet (MSDS) is provided for informational purposes only and is based on the information available as of the date of preparation. It is not intended to be a complete reference for the safe handling, use, storage, and disposal of ammonia gas. Users should exercise caution and seek professional advice as necessary.

End of MSDS
