



SAFETY DATA SHEET

Nitrogen (Expellant)

1. IDENTIFICATION

| | |
|----------------------------------------------------------------|--------------------------------------------------------------------------------|
| Product Name | Nitrogen (Expellant) |
| Other Names | N ₂ |
| Recommended use of the chemical and restrictions on use | |
| Identified uses | Fire Extinguishing Expellant |
| Restrictions on use | Consult applicable fire protection codes |
| Company Identification | Badger Fire Protection 1016 Corporate Park Drive Mebane, NC 27302 USA |
| Customer Information Number | (434) 964-3200 |
| Emergency Telephone Number | |
| CHEMTREC Number | (800) 424-9300 (703) 527-3887 (International) |
| Issue Date | February 24, 2025 |
| Supersedes Date | August 28, 2019 |

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200, the Canadian Hazardous Products Regulations (HPR) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

Hazard Classification

Gas under pressure – compressed gas
Simple Asphyxiant

Label Elements

Hazard Symbols



Signal Word: Warning

Hazard Statements

Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary Statements

Prevention

Do not enter confined space unless adequately ventilated.
In case of inadequate ventilation wear respiratory protection.

Response

None

Storage

Keep container tightly closed.
Protect from sunlight and store in well-ventilated place.

Disposal

None



SAFETY DATA SHEET

Nitrogen (Expellant)

2. HAZARD IDENTIFICATION

Other Hazards

Avoid direct inhalation of undiluted gas. Can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

| | |
|---------------------------|------|
| Acute oral toxicity | 0% |
| Acute dermal toxicity | 0% |
| Acute inhalation toxicity | 0% |
| Acute aquatic toxicity | 100% |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: N₂

This product is a substance.

| Component | CAS Number | Concentration |
|-----------|------------|---------------|
| Nitrogen | 7727-37-9 | 100% |

4. FIRST- AID MEASURES

Description of necessary first-aid measures

Eyes

No specific measures.

Skin

No specific measures.

Ingestion

Ingestion is not considered a potential route of exposure.

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

Notes to Physicians

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media

All known extinguishing media can be used. Use extinguishing media appropriate for containers in the area.

Specific hazards arising from the chemical

Containers may explode in heat of fire.



SAFETY DATA SHEET

Nitrogen (Expellant)

5. FIRE - FIGHTING MEASURES

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Remove leaking cylinder to a safe place. Ventilate the area. Leaks inside confined spaces may cause suffocation as oxygen is displaced and should not be entered without a self-contained breathing apparatus.

Environmental Precautions

None - Material is a normal atmospheric gas.

Methods and materials for containment and cleaning up

None

7. HANDLING AND STORAGE

Precautions for safe handling

Containers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll containers. Do not drop containers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the containers.

Conditions for safe storage

Store away from sources of heat or ignition. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Nitrogen

ACGIH: Simple Asphyxiant (Inert gas or vapor that acts primarily as a simple asphyxiant without other significant physiologic effects when present in high concentrations in air.)

Appropriate engineering controls

Use with adequate ventilation (natural or mechanical), especially in a confined space.

Individual protection measures

Respiratory Protection

Not normally required. In oxygen deficient atmospheres, use a self contained breathing apparatus, as an air purifying respirator will not provide protection.

Skin Protection

Use leather or sturdy work gloves when handling cylinders.

Eye/Face Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.



SAFETY DATA SHEET

Nitrogen (Expellant)

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|------------------------------------------------|-----------------------------------------|
| Appearance | |
| Physical State | Compressed gas |
| Color | Colorless |
| Odor | None |
| Odor Threshold | No data available |
| pH | Not applicable |
| Gas Density | 0.075 lb/ft ³ @70°F as vapor |
| Boiling Range/Point (°C/F) | -196°C/-321 °F |
| Melting Point (°C/F) | -210°C/-346 °F |
| Flash Point (PMCC) (°C/F) | Not flammable |
| Vapor Pressure | No data available |
| Evaporation Rate (BuAc=1) | Not applicable |
| Solubility in Water | 0.2 g/l |
| Vapor Density (Air = 1) | 0.97 |
| VOC (%) | Not applicable |
| Partition coefficient (n-octanol/water) | No data available |
| Viscosity | Not applicable |
| Auto-ignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Upper explosive limit | Not explosive |
| Lower explosive limit | Not explosive |
| Flammability (solid, gas) | Not flammable |

10. STABILITY AND REACTIVITY

Reactivity
Containers may rupture or explode if exposed to heat.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Hazardous polymerization will not occur.

Conditions to Avoid
Extremely high temperatures

Incompatible Materials
None known

Hazardous Decomposition Products
None

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Simple asphyxiant.



SAFETY DATA SHEET

Nitrogen (Expellant)

11. TOXICOLOGICAL INFORMATION

Specific Target Organ Toxicity (STOT) – single exposure

Exposure to nitrogen gas at high concentrations can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

Specific Target Organ Toxicity (STOT) – repeat exposure

No data available.

Serious Eye damage/Irritation

No data available.

Skin Corrosion/Irritation

No data available.

Respiratory or Skin Sensitization

No data available.

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Mobility in soil

Nitrogen occurs naturally in the atmosphere.

Persistence/Degradability

Nitrogen occurs naturally in the atmosphere.

Bioaccumulative Potential

Nitrogen occurs naturally in the atmosphere.

Other adverse effects

No relevant studies identified.



SAFETY DATA SHEET

Nitrogen (Expellant)

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of container in accordance with all applicable local and national regulations. Do not cut, puncture or weld on or near to the container. If spilled, contents will vaporize to the atmosphere.

14. TRANSPORT INFORMATION

Safety Data Sheet information is intended to address a specific material and not various forms or states of containment.

Special Precautions for Shipping:

Individuals must be certified as Hazardous Material Shipper for all transportation modes. Pressurized Fire Extinguishers are considered a hazardous material by the US Department of Transportation and Transport Canada.

Bulk Shipments:

| | |
|-----------------------------------------------------|--------------------------------------------------------------|
| DOT CFR 172.101 Data | Nitrogen, compressed, 2.2, UN1066 |
| UN Proper Shipping Name | Nitrogen, compressed |
| UN Class | (2.2) Non-Flammable Gas |
| UN Number | UN1066 |
| UN Packaging Group | Not Applicable |
| Classification for AIR Transportation (IATA) | Consult current IATA Regulations prior to shipping by air. |
| Classification for Water Transport IMDG | Consult current IMDG Regulations prior to shipping by water. |
| Fire Extinguishers: | |
| DOT CFR 172.101 Data | Fire extinguishers, 2.2, UN1044 |
| UN Proper Shipping Name | Fire extinguishers |
| UN Class | (2.2) |
| UN Number | UN1044 |
| UN Packaging Group | Not applicable |
| Classification for AIR Transportation (IATA) | Consult current IATA Regulations prior to shipping by air. |
| Classification for Water Transport IMDG | Consult current IMDG Regulations prior to shipping by water. |

This section is believed to be accurate at the time of preparation. It is not intended to be a complete statement or summary of the applicable laws, rules, or hazardous material regulations, and is subject to change. Users have the responsibility to confirm compliance with all laws, rules, and hazardous material regulations in effect at the time of shipping.

15. REGULATORY INFORMATION

United States TSCA Inventory

All components of this product are in compliance with the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory

All ingredients in this product have been verified for inclusion on the Domestic Substance List (DSL).



SAFETY DATA SHEET

Nitrogen (Expellant)

15. REGULATORY INFORMATION

SARA Title III Sect. 311/312 Categorization

Gas under pressure

SARA Title III Sect. 313

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 0

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards – None

Legend

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service

IARC: International Agency for Research on Cancer

LCLo: Lethal concentration low

N/A: Denotes no applicable information found or available

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

Revision Date: February 24, 2025

Replaces: August 28, 2019

Changes made: Updates to sections 1 and 2.

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

The information and recommendations presented in this SDS are based on sources believed to be accurate. Badger Fire Protection assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the material for their particular purposes. In particular, we make **NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED**, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.