



A UTC Fire & Security Company

# MATERIAL SAFETY DATA SHEET

## Nitrogen (Expellant)

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Nitrogen (Expellant)  
**Other Trade Names** N<sub>2</sub>  
**Manufacturer/Supplier** Badger Fire Protection  
**Address** 4251 Seminole Trail  
Charlottesville, VA 22911  
USA  
**Phone Number** (434)-973-4361  
**Chemtrec Number** (800) 424-9300  
**(for emergencies only)** (703) 527-3887 (International)  
**Revision Date:**  
**MSDS Date:** January 15, 2007

*This MSDS has been compiled in accordance with - EC Directive 91/155/EC - OSHA's Hazcom Standard (29 CFR 1910.1200)*

### 2. COMPOSITION/INFORMATION ON THE COMPONENTS

Component Name	CAS#/Codes	Concentration	R Phrases	EU Classification
Nitrogen	7727-37-9 EC#231-783-9	100%	None	Non Flammable Gas

### 3. HAZARD IDENTIFICATION

**EU Main Hazards**  
Non Flammable Gas

**Routes of Entry**

- Eye contact - Inhalation - Skin contact

**Carcinogenic Status**

Not considered carcinogenic by NTP, IARC, and OSHA.

**Target Organs**

- Respiratory System

**Health Effects - Eyes**

Non-irritating gas

**Health Effects - Skin**

Non-irritating gas

**Health Effects - Ingestion**

Ingestion is not a possible route of exposure.

**Health Effects - Inhalation**

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.



A UTC Fire & Security Company

# MATERIAL SAFETY DATA SHEET

## Nitrogen (Expellant)

---

### 4. 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.

**Advice to Physicians**

Treat symptomatically.

---

### 5. FIRE FIGHTING MEASURES

---

**Extinguishing Media**

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

**Unusual Fire and Explosion Hazards**

Containers may explode in heat of fire.

**Protective Equipment for Fire-Fighting**

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

---

### 6. ACCIDENTAL RELEASE MEASURES

---

Material is a normal atmospheric gas. Remove leaking cylinder to a safe place. Ventilate the area. Wear self contained breathing apparatus when entering confined spaces unless atmosphere is proven to be safe.

---

### 7. HANDLING AND STORAGE

---

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

---

**Occupational Exposure Standards****Nitrogen**

None

**Engineering Control Measures**

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



A UTC Fire & Security Company

## MATERIAL SAFETY DATA SHEET

### Nitrogen (Expellant)

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### Respiratory Protection

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

### Hand Protection

Use leather or sturdy work gloves when handling cylinders.

### Eye Protection

Chemical goggles or safety glasses with side shields.

### Body Protection

Normal work wear.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

<b>Physical State</b>	Compressed gas
<b>Color</b>	Colorless
<b>Odor</b>	None
<b>Specific Gravity</b>	Not applicable
<b>Boiling Range/Point (°C/F)</b>	-321°F
<b>Flash Point (PMCC) (°C/F)</b>	Not Flammable
<b>Solubility in Water</b>	0.2 g/l
<b>Vapor Density (Air = 1)</b>	0.97.
<b>Vapor Pressure</b>	Not determined
<b>Gas Density</b>	0.075 lb/ft <sup>3</sup> @70°F as vapor
<b>Evaporation Rate</b>	Not applicable

---

## 10. STABILITY AND REACTIVITY

---

### Stability

Stable under normal conditions.

### Conditions to Avoid

Extremely high temperatures - flames

### Materials to Avoid

None known

### Hazardous Polymerization

Will not occur.

### Hazardous Decomposition Products

None



A UTC Fire & Security Company

# MATERIAL SAFETY DATA SHEET

## Nitrogen (Expellant)

---

### 11. TOXICOLOGICAL INFORMATION

---

**Acute Toxicity**

Simple asphyxiant.

**Chronic Toxicity/Carcinogenicity**

This product is not expected to cause long term adverse health effects.

**Genotoxicity**

This product is not expected to cause any mutagenic effects.

**Reproductive/Developmental Toxicity**

This product is not expected to cause adverse reproductive effects.

---

### 12. ECOLOGICAL INFORMATION

---

**Mobility**

Nitrogen occurs naturally in the atmosphere.

**Persistence/Degradability**

Nitrogen occurs naturally in the atmosphere.

**Bio-accumulation**

Nitrogen occurs naturally in the atmosphere.

**Ecotoxicity**

No data available

---

### 13. DISPOSAL

---

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

---

**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

---

### 15. REGULATORY INFORMATION

---

**EU Label Information**

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments.

**EU Hazard Symbol and Indication of Danger.**

Non Flammable Gas



A UTC Fire & Security Company

# MATERIAL SAFETY DATA SHEET

## Nitrogen (Expellant)

---

### 15. REGULATORY INFORMATION

---

**R phrases**

None

**S phrases**

S9 Keep container in a well ventilated place.

**US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS****TSCA Listing**

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.

**EINECS Listing**

All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or the European List of New Chemical Substances (ELINCS) or are exempt from listing.

**DSL/NDSL (Canadian) Listing**

All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.

**WHMIS Classification**

A

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

**MA Right To Know Law**

All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at or above the de minimus concentration include: - Nitrogen

**PA Right To Know Law**

This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: - Nitrogen

**NJ Right To Know Law**

This product contains the following chemicals found on the NJ Right To Know Hazardous Substance List: - Nitrogen

**California Proposition 65**

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

**SARA Title III Sect. 302 (EHS)**

This product does not contain any chemicals subject to SARA Title III Section 302.

**SARA Title III Sect. 304**

This product does not contain any chemicals subject to SARA Title III Section 304.

**SARA Title III Sect. 311/312 Categorization**

- Immediate (Acute) Health Hazard - Pressure Hazard

**SARA Title III Sect. 313**

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



A UTC Fire & Security Company

## MATERIAL SAFETY DATA SHEET

### Nitrogen (Expellant)

---

## 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

#### **HMIS Ratings**

HMIS Code for Health - 0

HMIS Code for Flammability - 0

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

#### **Abbreviations**

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

R: Risk

S: Safety

**Prepared By:** EnviroNet LLC.

The information contained herein is based on data believed to be accurate. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for its own particular use. Badger Fire Protection assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.

---