



# SAFETY DATA SHEET

## Nitrogen (Expellant)

### 1. IDENTIFICATION

|                                                         |                                                                                                    |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Product Name                                            | Nitrogen (Expellant)                                                                               |
| Other Names                                             | N <sub>2</sub>                                                                                     |
| 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<br>944 Glenwood Station Lane, Suite 303<br>Charlottesville, VA 22901<br>USA |
| Customer Information Number                             | (434)-964-3200                                                                                     |
| Emergency Telephone Number                              |                                                                                                    |
| CHEMTREC Number                                         | (800) 424-9300<br>(703) 527-3887 (International)                                                   |
| Issue Date                                              | April 10, 2015                                                                                     |
| Supersedes Date                                         | February 9, 2015                                                                                   |

*Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) 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

Contents 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.



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#### 2. HAZARD IDENTIFICATION

**Response**

None

**Storage**

Keep container tightly closed.

Protect from sunlight and store in well-ventilated place.

**Disposal**

None

**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:** N<sub>2</sub>

This product is a substance.

**Component**

Nitrogen

**CAS Number**

7727-37-9

**Concentration**

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.



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#### 4. FIRST- AID MEASURES

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**Indication of immediate medical attention and special treatment needed**

**Notes to Physicians**

Treat symptomatically.

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#### 5. FIRE - FIGHTING MEASURES

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**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.

**Special Protective Actions for Fire-Fighters**

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

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#### 6. ACCIDENTAL RELEASE MEASURES

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**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

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#### 7. HANDLING AND STORAGE

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**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

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Control parameters**

Exposure limits are listed below, if they exist.

**Nitrogen**

None established



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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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##### 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.

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#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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##### Appearance

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| Physical State                          | Compressed gas                          |
| Color                                   | Colorless                               |
| Odor                                    | None                                    |
| Odor Threshold                          | No data available                       |
| pH                                      | Not applicable                          |
| Gas Density                             | 0.075 lb/ft <sup>3</sup> @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                           |



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#### 10. STABILITY AND REACTIVITY

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**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

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#### 11. TOXICOLOGICAL INFORMATION

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**Acute Toxicity**

Simple asphyxiant.

**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.



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#### 11. TOXICOLOGICAL INFORMATION

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**Aspiration Hazard**

Not an aspiration hazard.

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#### 12. ECOLOGICAL INFORMATION

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**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.

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#### 13. DISPOSAL CONSIDERATIONS

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**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.

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#### 14. TRANSPORT INFORMATION

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Safety Data Sheet information is intended to address a specific material and not various forms or states of containment. Specific volumes, pressures or hardware configurations containing such materials can dictate various different hazard classifications for transportation and labelling requirements. Under Federal Regulations only trained and qualified individuals are permitted to label and ship products following the applicable Department of Transportation (DOT), Federal Aviation Administration (FAA), Transport Canada (TC), International Maritime Dangerous Goods (IMDG) or International Air Transport Association (IATA) requirements.

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#### 15. REGULATORY INFORMATION

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**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).

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

Pressure Hazard



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#### 15. REGULATORY INFORMATION

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##### **SARA Title III Sect. 313**

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

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#### 16. OTHER INFORMATION

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##### **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 Physical Hazard - 0  
HMIS Code for Personal Protection - See Section 8  
\*Chronic

##### **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: April 10, 2015  
Replaces: February 9, 2015  
Changes made: Updated to GHS Classification.

##### **Information Source and References**

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

**Prepared By:** EnviroNet LLC.

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