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## I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

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### 1.1. Identification of the preparation

Product Name: "NITROGEN"  
Chemical Name: Nitrogen.  
CAS No.: 7727-37-9.  
Chemical Formula: N<sub>2</sub>.  
EINECS Number: 231-783-9.

### 1.2. Use of the preparation

The intended or recommended use of this preparation is to discharge a FIRE EXTINGUISHING AGENT.

### 1.3. Company identification

Manufacturer/Supplier: ANSUL INCORPORATED  
Address: One Stanton Street, Marinette, WI 54143-2542  
Prepared by: Safety and Health Department  
Phone: 715-735-7411  
Internet/Home Page: <http://www.ansul.com>  
Date of Issue: September, 2009

### 1.4. Emergency telephone

CHEMTREC 800-424-9300 or 703-527-3887

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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2.1. Ingredient Name: Nitrogen.  
Chemical Formula: N<sub>2</sub>.  
CAS No.: 7727-37-9.  
EINECS Number: 231-783-9.  
Concentration, Wt %: 100%.  
Hazard Identification: See Heading 3.

- 2.2. (i) There are no substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, in concentrations equal to or greater than those laid down in the table set out in Article 3(3) of Directive 1999/45/EC, nor with lower limits given in Annex I to Directive 67/548/EEC or in Annexes II, III or V to Directive 1999/45/EC.  
(ii) There are no substances for which there are Community workplace exposure limits, which are not already included in (i) above.

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## 3. HAZARDS IDENTIFICATION

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### FOR HUMANS:

EU Classification: Nonflammable Gas.  
R None.  
S 9 Keep container in a well ventilated place.

Limit Values for Exposure: None established.

This product has not been listed as carcinogenic by National Toxicology Program, IARC, or OSHA.

### SIGNS AND SYMPTOMS:

Acute Exposure:  
Eye Contact: Non-irritating gas.  
Skin Contact: Non-irritating gas.  
Inhalation: Can cause suffocation by reducing oxygen available for breathing.  
Breathing very high concentrations of vapor can cause dizziness, shortness of breath, unconsciousness, or even death.  
Ingestion: Non-irritating gas. Not a probable route of exposure.  
Chronic Overexposure: No data available.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

### FOR ENVIRONMENT:

This is a component of the atmosphere.

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#### 4. FIRST AID MEASURES

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Eye Contact:	Avoid direct contact with high pressure gas discharge.
Skin Contact:	Avoid direct contact with high pressure gas discharge.
Inhalation:	Avoid direct inhalation of undiluted gas. Gas is an asphyxiant.
Ingestion:	Not a probable route of exposure.

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#### 5. FIRE-FIGHTING MEASURES

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Non-flammable gas. Use agent appropriate to surrounding material.  
Though gas cylinders are equipped with pressure and temperature relief devices, they should be removed from high temperature areas or fires, if safe to do so, to avoid risk of rupture.  
There are NO extinguishing media which must not be used for safety reasons.  
NO special protective equipment is needed for fire-fighters.

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#### 6. ACCIDENTAL RELEASE MEASURES

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Material is a normal atmospheric gas.  
NO harm to the environment is expected from an accidental release of this preparation.

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#### 7. HANDLING AND STORAGE

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##### 7.1. Handling

Care should be taken in handling all chemical substances and preparations.  
Secure to prevent falling. Do not move without safety cap in place to prevent damage to valve.  
See incompatibility information in Heading 10.

##### 7.2. Storage

Store cylinders with restraints to prevent possibility of rupture. Store as a compressed gas in DOT approved vessels. Keep safety cap in place while in storage.  
See incompatibility information in Heading 10.  
Store in original container. Keep tightly closed until used.  
There is NO danger to the environment from a storage release.

##### 7.3. Specific use

The intended or recommended use of this preparation is to discharge a FIRE EXTINGUISHING AGENT.

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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##### 8.1. Exposure limit values

There are NO currently occupational exposure limit values for this component.

##### 8.2. Exposure controls

###### 8.2.1. Occupational exposure controls

###### 8.2.1.1. Respiratory protection

Exposure to high concentrations requires the use of self-contained breathing apparatus. Other respirators will not protect in an oxygen deficient atmosphere.

###### 8.2.1.2. Hand protection

Use leather gloves when handling cylinders.

###### 8.2.1.3. Eye protection

Use safety glasses with side shields or safety goggles.

###### 8.2.1.4. Skin protection

No special equipment is needed.

###### 8.2.2. Environmental exposure controls

None needed. This material is a normal atmospheric gas.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**9.1. General information**

Appearance: Colorless gas.  
Odor: None.

**9.2. Important health, safety, and environmental information**

pH: Not determined.  
Boiling point/boiling range: -195.8 °C.  
Flash point: None.  
Flammability (solid/gas): Not flammable.  
Explosive properties: Not explosive.  
Oxidizing properties: Not an oxidizer.  
Vapor Pressure: Not determined.  
Relative Density: Not applicable.  
Solubility:  
– Water solubility: Not soluble.  
– Fat solubility: Not soluble.  
Partition coefficient, n-octanol/water: Not determined.  
Viscosity: Not determined.  
Vapor density (Air = 1): 0.98.  
Evaporation rate: Not determined.

**9.3. Other information**

Auto-ignition temperature: Does not ignite.

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**10. STABILITY AND REACTIVITY**

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**10.1. Conditions to avoid**

Extremely high temperatures, as in a fire may cause a cylinder to fail.  
There are NO known conditions such as temperature, pressure, light, shock, etc., which may cause a dangerous reaction.

**10.2. Materials to avoid**

None known.

**10.3. Hazardous decomposition products**

Normally stable.  
Hazardous polymerization will not occur.  
Combustion or decomposition products will not form.

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**11. TOXICOLOGICAL INFORMATION**

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Can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations of vapor can cause dizziness, shortness of breath, unconsciousness, or even death.

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**12. ECOLOGICAL INFORMATION**

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**12.1. Ecotoxicity**

This material is a normal atmospheric gas.

**12.2. Mobility**

This material is a normal atmospheric gas.

**12.3. Persistence and degradability**

This material is a normal atmospheric gas.

**12.4. Bioaccumulative potential**

This material is a normal atmospheric gas.

**12.5. Other adverse effects**

Ozone depletion potential: None.  
Photochemical ozone creation potential: None.  
Global warming potential: None.

**13. DISPOSAL CONSIDERATIONS**

No harm to the environment is expected from this preparation.  
This material is a normal atmospheric gas.

**14. TRANSPORT INFORMATION**

Hazard Class or Division: Nitrogen, Compressed, Class 2.2, UN1066.  
Label: Non-flammable gas.  
Emergency response guide page number: 121; EMS (Intl): 2-04.  
For additional transport information, contact Ansul Incorporated.  
This material is a normal atmospheric gas.

**15. REGULATORY INFORMATION**

EU Classification: Nonflammable gas.  
R Phrases: None.  
S Phrases: 9 Keep container in a well ventilated place.  
Exposure Limit Values: None.  
EINECS Status: This component is included in EINECS inventories.  
EPA TSCA Status: This component is included in TSCA inventories.  
Canadian DSL (Domestic Substances List): This component is included in DSL inventories.  
Environmental restrictions: None are known.  
Restrictions on Marketing and Use: None are known.  
Refer to any other national measures that may be relevant.

**16. OTHER INFORMATION****(HMIS) HAZARDOUS MATERIAL IDENTIFICATION SYSTEM RATINGS:**

HEALTH:	<u>0</u>	4. Severe Hazard
FLAMMABILITY:	<u>0</u>	3. Serious Hazard
REACTIVITY:	<u>0</u>	2. Moderate Hazard
		1. Slight Hazard
		0. Minimal Hazard

**(WHMIS) CANADIAN WORKPLACE HAZARDOUS MATERIAL IDENTIFICATION SYSTEM RATINGS:**

This product is rated **A Compressed Gas**.

Toxicological information added from the EINECS ESIS (Existing Substances Information System). A rating under WHMIS has been added, following the Canadian guidelines.

Format is from directive 2001/58/EC.

EINECS data is from <http://ecb.jrc.it/existing-chemicals/>

Data used to compile the data sheet is from Ansul Material Safety Data Sheet, February, 2002.

**17. DISCLAIMER**

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT, BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ANSUL SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.

MSDS available at <http://www.ansul.com>