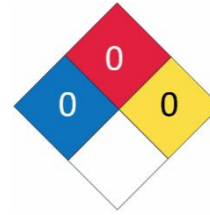




Label 2.2: Non-flammable,  
nontoxic gas



NFPA Rating

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Trade Name : Nitrogen, Compressed Gas  
 Chemical Name : Nitrogen  
 Company Indentation : Barrak Industrial Gases Factory.  
 Emergency telephone number : +966 13 5826507

### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Name	Product identifier	%
Nitrogen	(CAS-No.) 7727-37-9	>99%

### SECTION 3: HAZARDS IDENTIFICATION

**Emergency Overview** : Caution! High-pressure gas. Can cause rapid suffocation. May cause dizziness and drowsiness. Self-contained breathing apparatus and protective clothing may be required by rescue workers.

**Effects of a Single (Acute) Overexposure**

**-Inhalation** : Asphyxiant. Effects are due to lack of oxygen. Moderate concentrations may cause headache, drowsiness, dizziness, excitation, excess salivation, vomiting, and unconsciousness. Lack of oxygen can kill.

**Skin Contact** : No harm expected.

**Swallowing** : An unlikely route of exposure. This product is a gas at normal temperature and pressure.

**Eye Contact** : No harm expected.

**Effects of Repeated (Chronic) Overexposure** : No harm expected

**Other Effects of Overexposure** : Lack of oxygen can kill.

**Medical Conditions Aggravated by Overexposure** : The toxicology and the physical and chemical properties of argon suggest that the overexposure is unlikely to aggravate existing medical conditions.

**Potential Environmental Effects** : None known.

### SECTION 4: FIRST AID MEASURES

**Inhalation** : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.

**Skin contact** : An unlikely route of exposure. This product is a gas at normal temperature and pressure.

**Swallowing** : An unlikely route of exposure. This product is a gas at normal temperature and pressure.

**Eye Contact** : An unlikely route of exposure. This product is a gas at normal temperature and pressure.

### SECTION 4: FIRST AID MEASURES (Continued)

**Notes to Physician**

: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Victim may not be aware of asphyxiation.

### SECTION 5: FIRE FIGHTING MEASURES

**Flammable Properties**

: Nitrogen cannot catch fire.

**Flammable class**

: Non-flammable.

**Extinguishing media**

: All known extinguishants can be used.

**- Suitable extinguishing media**

**Hazardous combustion products**

: None.

**Specific physical and chemical hazards**

: Heat of fire can build pressure in cylinder and cause it to rupture. No part of cylinder should be subjected to a temperature higher than 52°C (125°F). Nitrogen cylinders are equipped with a pressure relief device. (Exceptions may exist.).

**Specific methods**

: If possible, stop flow of product. Evacuate all personnel from danger area. Immediately deluge cylinders with water from maximum distance until cool; then move them away from fire area if without risk. Self-contained breathing apparatus may be required by rescue workers.

**Protective equipment and precautions for firefighters**

: Firefighters should wear personal protective equipment and fire-fighting turnout gear.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions**

: Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.

**Environmental precautions**

: Try to stop release.

**Cleanup methods**

: Ventilate area.

### SECTION 7: HANDLING AND STORAGE

**Precautions to be taken in handling**

: Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact to BGas.

**Precautions to be taken in storage**

: Store and use with adequate ventilation. Always secure cylinders upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand. Store only where temperature will not exceed 52°C (125°F). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering controls</b>	
<b>Local exhaust</b>	: Use a local exhaust system, if necessary, to prevent oxygen deficiency.
<b>Mechanical (General)</b>	: General exhaust ventilation may be acceptable if it can maintain an adequate supply of air and keep hazardous fumes and gases below applicable TLVs in the worker's breathing zone.
<b>Special</b>	: None.
<b>Other</b>	: None.
<b>Personal protective equipment</b>	
<b>-Skin Protection</b>	: Wear work gloves when handling cylinders and metatarsal shoes for cylinder handling.
<b>Eye/Face Protection</b>	: Wear safety glasses when handling cylinders.
<b>Respiratory Protection</b>	: None required under normal use. Air-supplied respirators must be used in confined spaces or in an oxygen-deficient atmosphere.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Odor</b>	<b>Odorless.</b>
<b>Odor Threshold</b>	Not applicable.
<b>Physical State</b>	Gas at normal temperature and pressure.
<b>pH</b>	Not applicable.
<b>Melting Point at 1 atm</b>	-210°C (-346°F)
<b>Boiling Point at 1 atm</b>	-195.80°C(-320.44°F)
<b>Flash Point (test method)</b>	Not applicable.
<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not applicable.
<b>Flammability</b>	Nonflammable.
<b>Flammable Limits In Air, % by volume</b>	Lower: Not applicable. Upper: Not applicable.
<b>Vapor Pressure at 20°C (68°F)</b>	Not applicable.
<b>Vapor Density at 21.1°C (70°F ) and 1 atm</b>	0.0724 lb/ft3 (1.160 kg/m3)
<b>Liquid Density at boiling point and 1 atm</b>	50.7 lb/ft3 (808.5 kg/m3)
<b>Specific Gravity (H2O = 1) at -7°C (19.4°F)</b>	Not available.
<b>Specific Gravity (Air = 1) at 21.1°C (70°F) and 1 atm</b>	0.967
<b>Solubility In Water, vol/vol at 0°C (32°F) and 1 atm</b>	0.023
<b>Partition Coefficient: n-octanol/water</b>	Not available.
<b>Autoignition Temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not available.
<b>Percent Volatiles By Volume</b>	100
<b>Molecular Weight</b>	28.01
<b>Molecular Formula</b>	N <sub>2</sub>

### SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability</b>	: Stable
<b>Conditions to Avoid</b>	: High temperatures, exposure to lithium, neodymium, titanium, and magnesium
<b>Incompatible Materials</b>	: None known.
<b>Hazardous Decomposition Products</b>	: None known
<b>Possible of Hazardous Reactions</b>	: May Occur. under certain conditions, nitrogen can react violently with lithium, neodymium, titanium [above 800°C(1472°F)], and magnesium to form nitrides. At high temperature it can also combine with oxygen and hydrogen.

### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Acute Dose Effect</b>	: Nitrogen is a simple asphyxiant.
<b>Study Results</b>	: No known effects.

### SECTION 12: ECOLOGICAL INFORMATION

<b>Other Adverse Effects</b>	: No adverse ecological effects expected.
<b>Ecological Effects Information</b>	: Nitrogen does not contain any Class I or Class II ozone-depleting chemicals.

### SECTION 13: DISPOSAL CONSIDERATION

<b>Waste Disposal Method</b>	: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier.
------------------------------	--

### SECTION 14: TRANSPORT INFORMATION

<b>Transport Information</b>	: Avoid transport on vehicles where the load space is not separated from the driver's compartment. : Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. : Before transporting product containers: <ul style="list-style-type: none"><li>- Ensure that containers are firmly secured.</li><li>- Ensure cylinder valve is closed and not leaking.</li><li>- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.</li><li>- Ensure valve protection device (where provided) is correctly fitted.</li><li>- Ensure there is adequate ventilation.</li><li>- Compliance with applicable regulations.</li></ul>
------------------------------	---

### SECTION 15: OTHER INFORMATION

Asphyxiant in high concentrations.

Keep container in a well-ventilated place.

Do not breathe the gas

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

#### Hazard Rating Systems

NFPA Ratings:	HMIS Ratings:
Health =0	Health =0
Flammability =0	Flammability =0
Instability =0	Physical Hazard =3
Special = SA (CGA recommends this to designate Simple Asphyxiant).	

#### Standard valve connections

Threaded	CGA-580
Pin-Indexed Yoke	CGA-960 (Medical Use)
Use the proper CGA connections <b>Do Not Use Adapters.</b>	

End of Documents