SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form: Mixture
Formula: Non-flammable, Non-oxidizing gas mixture containing one or more of the following components: Ammonia, Oxygen, Nitrogen.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Calibration / Reference
Use of the substance/mixture: Industrial use. Use as directed.

1.3. Details of the supplier of the safety data sheet

PortaGas (Praxair, Inc.)
1202 E Sam Houston Pkwy S
Pasadena, TX 77503 - USA
T +1 713-928-6477 - F +1 713-928-9961
www.praxair.com

1.4. Emergency telephone number

Emergency number: Onsite Emergencies: 1-800-645-4633
CHEMTREC: USA 1-800-424-9300, International 001-703-527-3887 (Collect calls accepted, contract 17729)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)
Compressed gas H280
Aquatic Acute 3 H402

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US):

GHS04

Signal word (GHS-US): WARNING
Hazard statements (GHS-US):
H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED
H402 - HARMFUL TO AQUATIC LIFE

Precautionary statements (GHS-US):
P273 - Avoid release to the environment.
P403 - Use and store only outdoors or in a well-ventilated place.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.
CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F).
CGA-PG05 - Use a back flow preventive device in the piping.
CGA-PG06 - Close valve after each use and when empty.
CGA-PG10 - Use only with equipment rated for cylinder pressure.
CGA-PG11 - Never put cylinders into unventilated areas of passenger vehicles.
CGA-PG12 - Do not open valve until connected to equipment prepared for use.
CGA-PG21 - Open valve slowly.
CGA-PG27 - Read and follow the Safety Data Sheet (SDS) before use.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable
SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>(CAS No) 7727-57-9</td>
<td>74.1</td>
<td>Compressed gas, H280</td>
</tr>
<tr>
<td>Oxygen</td>
<td>(CAS No) 7782-44-7</td>
<td>0.001</td>
<td>Ox. Gas 1, H270</td>
</tr>
<tr>
<td>Ammonia</td>
<td>(CAS No) 7664-41-7</td>
<td>0.001</td>
<td>Liquefied gas, H280</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped. Immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.

First-aid measures after skin contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately.

First-aid measures after ingestion: Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed
No additional information available

4.3. Indication of any immediate medical attention and special treatment needed
Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture
Reactivity: No reactivity hazard other than the effects described in sub-sections below.

5.3. Advice for firefighters
Firefighting instructions: Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

Special protective equipment for fire fighters: Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: DANGER: Toxic. Corrosive. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). (gas tight, chemical-protective) Evacuate personnel to a safe area. Approach suspected leak area with caution. Remove all sources of ignition. Toxic, corrosive vapor can spread from spill. Ventilate area or move container to a well-ventilated area. Before entering the area, especially a confined area, check the atmosphere with an appropriate device.

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
No additional information available
6.2. Environmental precautions

Try to stop release. Reduce vapor with fog or fine water spray. Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. 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. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well-ventilated place. Store and use with adequate ventilation. Store only where temperature will not exceed 125°F (52°C). Firmly secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE: When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>PTG-4003</th>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>DNEL</td>
<td>DNEL &lt;=</td>
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**Nitrogen (7727-37-9)**

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**Oxygen (7782-44-7)**

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**Ammonia (7664-41-7)**

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>ACGIH TLV-TWA (ppm) 25 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TLV-STE (ppm) 35 ppm</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³) 35 mg/m³</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm) 50 ppm</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Appropriate engineering controls: Provide adequate general and local exhaust ventilation. Alarm detectors should be used when toxic gases may be released. Product to be handled in a closed system. Ensure exposure is below occupational exposure limits (where available).

Personal protective equipment: Gloves. Safety glasses.

Eye protection: Wear safety glasses with side shields or goggles when transfilling or breaking transfer connections. Provide readily accessible eye wash stations and safety showers. Wear safety glasses when handling cylinders; vapor-proof goggles and a face shield during cylinder changeout or whenever contact with product is possible. Select eye protection in accordance with OSHA 29 CFR 1910.133.

Skin and body protection: Wear metatarsal shoes for container handling. Wear metatarsal shoes and work gloves for cylinder handling, and protective clothing where needed. Wear appropriate chemical gloves during cylinder changeout or wherever contact with product is possible. Select per OSHA 29 CFR 1910.132, 1910.136, and 1910.138.

Respiratory protection: When workplace conditions warrant respirator use, follow a respiratory protection program that meets OSHA 29 CFR 1910.134, ANSI Z88.2, or MSHA 30 CFR 72.710 (where applicable). Use an air-supplied or air-purifying cartridge if the action level is exceeded. Ensure that the respirator has the appropriate protection factor for the exposure level. If cartridge type respirators are used, the cartridge must be appropriate for the chemical exposure (e.g., an organic vapor cartridge). For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Thermal hazard protection: Wear cold insulating gloves when transfilling or breaking transfer connections.

Other information: Keep suitable chemically resistant protective clothing readily available for emergency use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Gas
Appearance: Colorless gas.
Color: Colorless
Odor: Ammonia-like
Odor threshold: No data available
pH: Not applicable.
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Relative evaporation rate (butyl acetate=1): No data available
Relative evaporation rate (ether=1): Not applicable.
Flammability (solid, gas): No data available
Explosion limits: No data available
Explosive properties: Not applicable.
Oxidizing properties: None.
Vapor pressure: Not applicable.
Relative density: No data available
Relative vapor density at 20 °C: No data available
Solubility: Water: No data available
Log Pow: Not applicable.
Log Kow: Not applicable.
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: Not applicable.
Viscosity, kinematic: Not applicable.
**PTG-4003**

Safety Data Sheet


<table>
<thead>
<tr>
<th>Section</th>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9.2. Other information</strong></td>
<td></td>
<td>No additional information available</td>
</tr>
<tr>
<td><strong>SECTION 10: Stability and reactivity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10.1. Reactivity</strong></td>
<td></td>
<td>No reactivity hazard other than the effects described in sub-sections below.</td>
</tr>
<tr>
<td><strong>10.2. Chemical stability</strong></td>
<td></td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td><strong>10.3. Possibility of hazardous reactions</strong></td>
<td></td>
<td>No additional information available</td>
</tr>
<tr>
<td><strong>10.4. Conditions to avoid</strong></td>
<td></td>
<td>Avoid moisture in installation systems.</td>
</tr>
<tr>
<td><strong>10.5. Incompatible materials</strong></td>
<td></td>
<td>No additional information available</td>
</tr>
<tr>
<td><strong>10.6. Hazardous decomposition products</strong></td>
<td></td>
<td>No additional information available</td>
</tr>
<tr>
<td><strong>SECTION 11: Toxicological information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>11.1. Information on toxicological effects</strong></td>
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<td></td>
</tr>
<tr>
<td>Acute toxicity</td>
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<tr>
<td><strong>Ammonia (7664-41-7)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>7338 ppm/1h</td>
<td></td>
</tr>
<tr>
<td>ATE US (gases)</td>
<td>3669.000 ppmV/4h</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>pH: Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>pH: Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 12: Ecological information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>12.1. Toxicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ammonia (7664-41-7)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 fish 1</td>
<td>0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>25.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
<td></td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>2.43 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)</td>
<td></td>
</tr>
<tr>
<td><strong>12.2. Persistence and degradability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PTG-4003</strong></td>
<td></td>
<td>No ecological damage caused by this product.</td>
</tr>
<tr>
<td><strong>Nitrogen (7727-37-9)</strong></td>
<td></td>
<td>No ecological damage caused by this product.</td>
</tr>
</tbody>
</table>
Oxygen (7782-44-7)
Persistence and degradability
No ecological damage caused by this product.

Ammonia (7664-41-7)
Persistence and degradability
The substance is biodegradable. Unlikely to persist.

12.3. Bioaccumulative potential

PTG-4003
Log Pow
Not applicable.
Log Kow
Not applicable.
Bioaccumulative potential
No ecological damage caused by this product.

Nitrogen (7727-37-9)
Log Pow
Not applicable.
Log Kow
Not applicable.
Bioaccumulative potential
No ecological damage caused by this product.

Oxygen (7782-44-7)
Log Pow
Not applicable.
Log Kow
Not applicable.
Bioaccumulative potential
No ecological damage caused by this product.

Ammonia (7664-41-7)
Log Pow
Not applicable.
Log Kow
Not applicable.
Bioaccumulative potential
Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

12.4. Mobility in soil

PTG-4003
Mobility in soil
No data available.

Nitrogen (7727-37-9)
Mobility in soil
No data available.
Ecology - soil
No ecological damage caused by this product.

Oxygen (7782-44-7)
Mobility in soil
No data available.
Ecology - soil
No ecological damage caused by this product.

Ammonia (7664-41-7)
Mobility in soil
No data available.
Ecology - soil
Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5. Other adverse effects

Other adverse effects
May cause pH changes in aqueous ecological systems.
Effect on ozone layer
None.
Effect on the global warming
No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations
Do not attempt to dispose of residual or unused quantities. Return container to supplier.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Transport document description
UN1956 Compressed gas, n.o.s., 2.2
UN-No.(DOT)
UN1956
Proper Shipping Name (DOT)
Compressed gas, n.o.s.
Transport hazard class(es) (DOT)
2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
Hazard labels (DOT) : 2.2 - Non-flammable gas

DOT Packaging Non Bulk (49 CFR 173.xxx) : 302;305
DOT Packaging Bulk (49 CFR 173.xxx) : 314;315
DOT Symbols : G - Identifies proper shipping name (PSN) requiring the addition of technical name(s) in parentheses following the PSN.

DOT Packaging Exceptions (49 CFR 173.xxx) : 306;307
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 172.101 HMT, Column 9a) : 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 172.101 HMT, Column 9b) : 150 kg

DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

**Additional information**

Emergency Response Guide (ERG) Number : 126
Other information : No supplementary information available.
Special transport precautions : 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:
- Ensure there is adequate ventilation.
- Ensure that containers are firmly secured.
- Ensure cylinder valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.

**ADR**

Class (ADR) : 2 - Gases
Hazard identification number (Kemler No.) : 20
Classification code (ADR) : 1A
Hazard Class Labels (ADR) : 2.2 - Non-flammable compressed gas

Orange plates : 20 1956

Tunnel restriction code (ADR) : E
Limited quantities (ADR) : 120ml
Excepted quantities (ADR) : E1

**Transport by sea**

UN-No. (IMDG) : 1956
Proper Shipping Name (IMDG) : COMPRESSED GAS, N.O.S.
Class (IMDG) : 2 - Gases
Limited quantities (IMDG) : 120ml
EmS-No. (1) : F-C
MFAG-No : 620
EmS-No. (2) : S-V

**Air transport**

UN-No. (IATA) : 1956
Proper Shipping Name (IATA) : Compressed gas, n.o.s.
Class (IATA) : 2
Instruction "cargo" (ICAO) : 200
Instruction "passenger" (ICAO) : 200
Instruction "passenger" - Limited quantities (ICAO) : FORBIDDEN

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

**Nitrogen (7727-37-9)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Oxygen (7782-44-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Ammonia (7664-41-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the United States SARA Section 302
Subject to reporting requirements of United States SARA Section 313

| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard, Delayed (chronic) health hazard, Sudden release of pressure hazard, Fire hazard |
| SARA Section 313 - Emission Reporting | 1.0 % (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing) |

#### 15.2. International regulations

**CANADA**

**Nitrogen (7727-37-9)**

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification | Class A - Compressed Gas

**Oxygen (7782-44-7)**

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification | Class A - Compressed Gas, Class C - Oxidizing Material

**Ammonia (7664-41-7)**

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification | Class A - Compressed Gas, Class B Division 1 - Flammable Gas, Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects, Class E - Corrosive Material

**EU-Regulations**

**Nitrogen (7727-37-9)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**Oxygen (7782-44-7)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**Ammonia (7664-41-7)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| Ox, Gas 1 | H270 |
| Compressed gas | H280 |
| Acute Tox. 3 (Inhalation:gas) | H331 |
| Skin Corr. 1B | H314 |

Full text of H-phrases: see section 16
Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
No additional information available

National regulations

**Nitrogen (7727-37-9)**
- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the Korean ECL (Existing Chemicals List)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

**Oxygen (7782-44-7)**
- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the Korean ECL (Existing Chemicals List)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

**Ammonia (7664-41-7)**
- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
- Listed on the Korean ECL (Existing Chemicals List)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Japanese Poisonous and Deleterious Substances Control Law
- Listed on the Canadian IDL (Ingredient Disclosure List)

### 15.3. US State regulations

**Nitrogen (7727-37-9)**
- U.S. - Massachusetts - Right To Know List
- U.S. - New Jersey - Right to Know Hazardous Substance List
- U.S. - Pennsylvania - RTK (Right to Know) List

**Oxygen (7782-44-7)**
- U.S. - Massachusetts - Right To Know List
- U.S. - New Jersey - Right to Know Hazardous Substance List
- U.S. - Pennsylvania - RTK (Right to Know) List

**Ammonia (7664-41-7)**
- U.S. - Massachusetts - Right To Know List
- U.S. - New Jersey - Right to Know Hazardous Substance List
- U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

- **Revision date**: 07/01/2015
- **Training advice**: Users of breathing apparatus must be trained.
When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product.

Before using any plastics, confirm their compatibility with this product. Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair, Inc., it is the user's obligation to determine the conditions of safe use of the product. Praxair SDSs are furnished on sale or delivery by Praxair or the independent distributors and suppliers who package and sell our products. To obtain current SDSs for these products, contact your Praxair sales representative, local distributor, or supplier, or download from www.praxair.com. If you have questions regarding Praxair SDSs, would like the document number and date of the latest SDS, or would like the names of the Praxair suppliers in your area, phone or write the Praxair Call Center (Phone: 1-800-PRAXAIR/1-800-772-9247; Address: Praxair Call Center, Praxair, Inc., P.O. Box 44, Tonawanda, NY 14151-0044). PRAXAIR and the Flowing Airstream design are trademarks or registered trademarks of Praxair Technology, Inc. in the United States and/or other countries.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation:gas)</th>
<th>Acute toxicity (inhalation:gas) Category 4</th>
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<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 1</td>
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<td>Aquatic Acute 3</td>
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<td>Liquefied gas</td>
<td>Gases under pressure Liquefied gas</td>
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<td>Ox. Gas 1</td>
<td>Oxidizing gases Category 1</td>
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<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation Category 1B</td>
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<tr>
<td>H270</td>
<td>MAY CAUSE OR INTENSIFY FIRE; OXIDIZER</td>
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<tr>
<td>H280</td>
<td>CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED</td>
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<td>H314</td>
<td>CAUSES SEVERE SKIN BURNS AND EYE DAMAGE</td>
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<td>H332</td>
<td>HARMFUL IF INHALED</td>
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<tr>
<td>H400</td>
<td>VERY TOXIC TO AQUATIC LIFE</td>
</tr>
<tr>
<td>H402</td>
<td>HARMFUL TO AQUATIC LIFE</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.