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

1.1. **Product identifier**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Mixture</td>
</tr>
<tr>
<td>Product name</td>
<td>Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen</td>
</tr>
<tr>
<td>Replaces ISC MSDS No.</td>
<td>1810-8670</td>
</tr>
</tbody>
</table>

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

Use of the substance/mixture: Test gas/Calibration gas.

1.3. **Details of the supplier of the safety data sheet**

U.S. Supplier: Industrial Scientific Corporation
1 Life Way
Pittsburgh, PA 15205-7500
Phone (412) 788-4353
TOLL-FREE 800-DETECTS
Fax (412) 788-8353

MANUFACTURER: CALGAZ
821 Chesapeake Drive
Cambridge, MD 21613

1.4. **Emergency telephone number**

Emergency number: CHEMTREC: 1-800-424-9300
Internationally: 1-703-527-3887

**SECTION 2: Hazards identification**

2.1. **Classification of the substance or mixture**

**Classification (GHS-US)**
Compressed gas H280

Full text of H-phrases: see section 16

2.2. **Label elements**

**GHS-US labeling**

Hazard pictograms (GHS-US):

- ![GHS04](image)

Signal word (GHS-US): Warning

Hazard statements (GHS-US): H280 - Contains gas under pressure; may explode if heated

Precautionary statements (GHS-US):

- P202 - Do not handle until all safety precautions have been read and understood
- P271 - Use only outdoors or in a well-ventilated area
- P403 - Store in a well-ventilated place
- 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-PG14 - Approach suspected leak area with caution
- CGA-PG21 - Open valve slowly

2.3. **Other hazards**

No additional information available

2.4. **Unknown acute toxicity (GHS US)**

Not applicable
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen

Safety Data Sheet

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SECTION 3: Composition/information on ingredients

<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) 7727-37-9</td>
<td>76.45 - 80.4999</td>
<td>Compressed gas, H280</td>
</tr>
<tr>
<td>Oxygen</td>
<td>(CAS No) 7782-44-7</td>
<td>19.5 - 23.5</td>
<td>Ox. Gas 1, H270</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>(CAS No) 7783-06-4</td>
<td>0.0001 - 0.05 Flm. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation:gas), H330 STOT SE 3, H335 Aquatic Acute 1, H400</td>
<td></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 general: Adverse effects not expected from this product. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Adverse effects not expected from this product. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Adverse effects not expected from this product.

First-aid measures after eye contact: Adverse effects not expected from this product.

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

Symptoms/injuries after inhalation: Adverse effects not expected from this product.

Symptoms/injuries after skin contact: Adverse effects not expected from this product.

Symptoms/injuries after eye contact: Adverse effects not expected from this product.

Symptoms/injuries after ingestion: Ingestion is not considered a potential route of exposure.

Symptoms/injuries upon intravenous administration: Not known.

Chronic symptoms: Adverse effects not expected from this product.

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

If you feel unwell, seek medical advice. If breathing is difficult, give oxygen.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media: Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

Fire hazard: The product is not flammable.

Explosion hazard: Product is not explosive. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: None known.

5.3. Advice for firefighters

Firefighting instructions: In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

Protection during firefighting: Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Do not enter fire area without proper protective equipment, including respiratory protection.

Specific methods: Exposure to fire may cause containers to rupture/explode. Continue water spray from protected position until container stays cool. Move containers away from the fire area if this can be done without risk.
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen

Safety Data Sheet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment consistent with the site emergency plan.


6.1.2. For emergency responders

Protective equipment: Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Equip cleanup crew with proper protection.

Emergency procedures: Evacuate and limit access. Ventilate area.

6.2. Environmental precautions

Try to stop release if safe to do so.

6.3. Methods and material for containment and cleaning up

For containment: Try to stop release if safe to do so.

Methods for cleaning up: Dispose of this material and its container in accordance with local regulations.

6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Pressurized container: Do not pierce or burn, even after use. Use equipment rated for cylinder pressure.

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.

Safe handling of the gas receptacle: Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents.

Safe use of the product: The substance must be handled in accordance with good industrial hygiene and safety procedures. Only experienced and properly instructed persons should handle gases under pressure. Consider pressure relief device(s) in gas installations. Ensure the complete gas system was (or is regularly) checked for leaks before use. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

Hygiene measures: Do not eat, drink or smoke when using this product. Observe very strict hygiene - avoid contact.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: None known.

Storage conditions: Do not expose to temperatures exceeding 52°C (125°F). Keep container closed when not in use. Protect cylinder from physical damage. Store in well ventilated area.

Incompatible products: None known.

Incompatible materials: Flammable materials. Nitric acid.

Storage area: Store away from heat. Store in a well-ventilated place.

7.3. Specific end use(s)

See Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen |
|---------------------------------|-----------------|
| ACGIH                            | Not applicable  |
| OSHA                             | Not applicable  |
| Hydrogen sulfide (7783-06-4)     |                 |
| ACGIH                            | ACGIH TWA (ppm) |
|                                 | 1 ppm           |
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Hydrogen sulfide (7783-06-4)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH STEL (ppm)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (Ceiling) (ppm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oxygen (7782-44-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nitrogen (7727-37-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Alarm detectors should be used when toxic gases may be released. Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Consider work permit system e.g. for maintenance activities. Ensure exposure is below occupational exposure limits.


Skin and body protection: Wear suitable protective clothing, e.g. - lab coats, coveralls or flame resistant clothing.

Respiratory protection: None necessary during normal and routine operations. See Sections 5 & 6.

Thermal hazard protection: None necessary during normal and routine operations.

Environmental exposure controls: Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.


SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Gas
Appearance: Clear, colorless gas.
Color: Colourless. Colorless
Odor: Rotten eggs. Sulfide-like
Odor threshold: No data available
pH: Not applicable for gas-mixtures.
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 for gas-mixtures.
Flammability (solid, gas): See Sect. 2.1 & 2.2
Explosion limits: Not applicable - not flammable
Explosive properties: Not applicable - not flammable.
Oxidizing properties: Not combustible but enhances combustion of other substances. Supports combustion.
Vapor pressure: Not applicable.
Relative density: No data available
Relative vapor density at 20 °C: No data available
Molecular mass: Not applicable for gas-mixtures.
Relative gas density: Lighter or similar to air.
Solubility: Water: Solubility in water of component(s) of the mixture:
• : 3980 mg/l • : 39 mg/l • : 20 mg/l
Log Pow: Not applicable for gas-mixtures.
Log Kow: Not applicable for gas-mixtures.
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen
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Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : Not applicable.
Viscosity, dynamic : Not applicable.

9.2. Other information
Additional information : None.

SECTION 10: Stability and reactivity

10.1. Reactivity
None known.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Can form explosive mixtures with flammable materials. Hydrogen sulfide can form explosive compounds with nitric acid.

10.4. Conditions to avoid
Storage near nitric acid. See section 7. None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
Flammable materials. Nitric acid.

10.6. Hazardous decomposition products
Under normal conditions of storage and use hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact
Acute toxicity : Not classified

<table>
<thead>
<tr>
<th>Hydrogen sulfide (7783-06-4)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>0.99 mg/l (Exposure time: 1 h)</td>
</tr>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>356 ppm/4h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oxygen (7782-44-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>800000 ppm/4h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nitrogen (7727-37-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>820000 ppm/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
pH: Not applicable for gas-mixtures.

Serious eye damage/irritation : Not classified
pH: Not applicable for gas-mixtures.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Adverse effects not expected from this product.
Symptoms/injuries after skin contact : Adverse effects not expected from this product.
# Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen

Safety Data Sheet

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## Symptoms/injuries after eye contact

- Adverse effects not expected from this product.

## Symptoms/injuries after ingestion

- Ingestion is not considered a potential route of exposure.

## Symptoms/injuries upon intravenous administration

- Not known.

## Chronic symptoms

- Adverse effects not expected from this product.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecology - general**

No ecological damage caused by this product.

**Hydrogen sulfide (7783-06-4)**

<table>
<thead>
<tr>
<th>Test</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
<th>LC50 fish 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])</td>
<td>0.022 mg/l (Exposure time: 96 h - Species: Gammarus pseudolimnaeus)</td>
<td>0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

**Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen**

Persistence and degradability

No data available.

**Hydrogen sulfide (7783-06-4)**

Persistence and degradability

Not applicable for inorganic gases.

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

Persistence and degradability

No ecological damage caused by this product.

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

Persistence and degradability

No ecological damage caused by this product.

### 12.3. Bioaccumulative potential

**Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen**

Log Pow

Not applicable for gas-mixtures.

Log Kow

Not applicable for gas-mixtures.

Bioaccumulative potential

No data available.

**Hydrogen sulfide (7783-06-4)**

BCF fish 1

(no bioaccumulation expected)

Log Pow

Not applicable for inorganic gases.

Bioaccumulative potential

No data available.

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

Log Pow

Not applicable for inorganic gases.

Bioaccumulative potential

No data available.

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

Log Pow

Not applicable for inorganic gases.

Bioaccumulative potential

No ecological damage caused by this product.

### 12.4. Mobility in soil

**Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen**

Mobility in soil

No data available.

**Hydrogen sulfide (7783-06-4)**

Ecology - soil

Because of its high volatility, the product is unlikely to cause ground or water pollution.

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

Ecology - soil

No ecological damage caused by this product.

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

Ecology - soil

No ecological damage caused by this product.

### 12.5. Other adverse effects

Effect on ozone layer

None.

Effect on the global warming

No known ecological damage caused by this product.
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance
Nitrogen
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods : Contact supplier if guidance is required. Do not discharge into any place where its accumulation could be dangerous. Ensure that the emission levels from local regulations or operating permits are not exceeded.

Waste disposal recommendations : Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at www.cganet.com for more guidance on suitable disposal methods.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Transport document description : UN1956 Compressed gas, n.o.s.

UN-No.(DOT) : UN1956
Proper Shipping Name (DOT) : Compressed gas, n.o.s.
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 PSN requiring a technical name
DOT Packaging Exceptions (49 CFR 173.xxx) : 306;307
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 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
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
Transport document description : UN 1956 COMPRESSED GAS, N.O.S., 2.2
Class (ADR) : 2 - Gases
Hazard labels (ADR) : 2.2 - Non-flammable compressed gas

Transport by sea
UN-No. (IMDG) : 1956
Proper Shipping Name (IMDG) : COMPRESSED GAS, N.O.S.
Class (IMDG) : 2.2 - Non-flammable, non-toxic gases
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Air transport
- UN-No.(IATA): 1956
- Proper Shipping Name (IATA): COMPRESSED GAS, N.O.S.
- Class (IATA): 2

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations
**Hydrogen sulfide (7783-06-4)**
- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- Listed on the United States SARA Section 302
- Listed on United States SARA Section 313
- SARA Section 302 Threshold Planning Quantity (TPQ): 500
- SARA Section 313 - Emission Reporting: 1.0 %

**Oxygen (7782-44-7)**
- Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Nitrogen (7727-37-9)**
- Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

**CANADA**

**Hydrogen sulfide (7783-06-4)**
- 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 D Division 2 Subdivision B - Toxic material causing other toxic effects

**Oxygen (7782-44-7)**
- Listed on the Canadian DSL (Domestic Substances List)
- WHMIS Classification:
  - Class A - Compressed Gas
  - Class C - Oxidizing Material

**Nitrogen (7727-37-9)**
- Listed on the Canadian DSL (Domestic Substances List)
- WHMIS Classification:
  - Class A - Compressed Gas

**EU-Regulations**

**Hydrogen sulfide (7783-06-4)**
- 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)

**Nitrogen (7727-37-9)**
- Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]
- Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
- No additional information available

**National regulations**
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Hydrogen sulfide (7783-06-4) | 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)  
|                             | Listed on the Canadian IDL (Ingredient Disclosure List)  

| 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)  

| 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)  

15.3. US State regulations

| Hydrogen sulfide (7783-06-4) | U.S. - Massachusetts - Right To Know List  
|                              | U.S. - New Jersey - Right to Know Hazardous Substance List  
|                              | U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard 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  

| 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  

SECTION 16: Other information

| Indication of changes | Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.  
| Other information | This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product.  

04/27/2015  
EN (English US)  
SDS ID: 50256 / P/N 3603  
9/1
Hydrogen Sulfide (0.0001% - 0.05%), Oxygen (19.5 - 23.5%) in balance Nitrogen
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 2 (Inhalation:gas)</th>
<th>Acute toxicity (inhalation:gas) Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 1</td>
</tr>
<tr>
<td>Compressed gas</td>
<td>Gases under pressure Compressed gas</td>
</tr>
<tr>
<td>Flam. Gas 1</td>
<td>Flammable gases Category 1</td>
</tr>
<tr>
<td>Liquefied gas</td>
<td>Gases under pressure Liquefied gas</td>
</tr>
<tr>
<td>Ox. Gas 1</td>
<td>Oxidizing gases Category 1</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H220</td>
<td>Extremely flammable gas</td>
</tr>
<tr>
<td>H270</td>
<td>May cause or intensify fire; oxidizer</td>
</tr>
<tr>
<td>H280</td>
<td>Contains gas under pressure; may explode if heated</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this gas mixture. To the best of Calgaz's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.