## SECTION 1: Identification

### 1.1. Identification

**Product form**: Mixture

**Formula**: Non-flammable, non-oxidizing gas mixture containing one or more of the following components: Hydrogen Sulfide, Carbon Monoxide, Carbon Dioxide, Methane, 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

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

**Industrial Scientific Corporation (AU)**

Imported By: Scientific Gas Australia Pty Ltd.

Unit 3, 1 Perry Road

Matraville NSW, 2036 - Australia

T PH 1300 880 531

**1.4. Emergency telephone number**

**Emergency number**: Emergency Phone: International call (outside USA): +1 813 248 0585; Emergency Phone: International call (outside USA): +1 813 248 058; Australian Fire Brigade: 000; Australian Poison Information Centre: 13 11 26 CHEMTREC: USA 1-800-424-9300, International 001-703-527-3887 (Collect calls accepted, contract 17729)

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**

Compressed gas - H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED

Full text of H-statements: see section 16

### 2.2. Label elements

**GHS-US labelling**

**Hazard pictograms (GHS-US)**

**Signal word (GHS-US)**: WARNING

**Hazard statements (GHS-US)**: H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED

**Precautionary statements (GHS-US)**: P403 - Use and store only outdoors or in a well-ventilated place.

CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F).

CGA-PG12 - Do not open valve until connected to equipment prepared for use.

CGA-PG10 - Use only with equipment rated for cylinder pressure.

CGA-PG21 - Open valve slowly.

CGA-PG06 - Close valve after each use and when empty.

CGA-PG05 - Use a back flow preventive device in the piping.

CGA-PG11 - Never put cylinders into unventilated areas of passenger vehicles.

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

Not applicable
### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<table>
<thead>
<tr>
<th>First-aid measures after inhalation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately remove to fresh air.</td>
<td>If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First-aid measures after skin contact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adverse effects not expected from this product.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First-aid measures after eye contact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First-aid measures after ingestion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ingestion is not considered a potential route of exposure.</td>
</tr>
</tbody>
</table>

#### 4.2. Most important symptoms and effects, both acute and delayed

<table>
<thead>
<tr>
<th>Symptoms/injuries</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effects are due to lack of oxygen. Moderate concentrations may cause headache, drowsiness, dizziness, excitation, excess salivation, vomiting, and unconsciousness. Prolonged exposure to low concentrations of carbon monoxide can kill. Inhalation.</td>
</tr>
</tbody>
</table>

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

None.

### 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

<table>
<thead>
<tr>
<th>Fire hazard</th>
<th>Not flammable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard</td>
<td>Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.</td>
</tr>
<tr>
<td>Reactivity</td>
<td>No reactivity hazard other than the effects described in sub-sections below.</td>
</tr>
</tbody>
</table>

#### 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 | Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters. |

| Other information | Containers are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT.). |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th>For non-emergency personnel</th>
<th>Emergency procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Evacuate unnecessary personnel.</td>
</tr>
</tbody>
</table>

| For emergency responders | No additional information available |

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Full text of H-statements: see section 16

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08/25/2015 EN (English) SDS ID: PTG-4001
6.2. Environmental precautions

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

Technical measures:
Comply with applicable regulations.

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH</th>
<th>ACGIH TLV-TWA (ppm)</th>
<th>ACGIH TLV-STEL (ppm)</th>
<th>OSHA PEL (Ceiling) (ppm)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
<th>OSHA PEL (TWA) (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen sulfide (7783-06-4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td>1 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td>5 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td></td>
<td>20 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide (630-08-0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td>25 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td>55 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td>50 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide (124-38-9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td>5000 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td>30000 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td>9000 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td>5000 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PTG-4001
Safety Data Sheet

8.2. Exposure controls

Appropriate engineering controls: Provide adequate general and local exhaust ventilation. Ensure exposure is below occupational exposure limits (where available).

Personal protective equipment: Safety glasses. Gloves.

Eye protection: 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). Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Gas

Colour: Colourless

Odour: Rotten eggs

Odour threshold: > 3 ppm Hydrogen Sulfide

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 (butylacetate=1): No data available

Relative evaporation rate (ether=1): Not applicable.

Flammability (solid, gas): No data available

Explosive limits: No data available

Explosive properties: Not applicable.

Oxidising properties: None.

Vapour pressure: Not applicable.

Relative density: No data available

Relative vapour density at 20 °C: No data available

Solubility: Water: No data available

Log Pow: Not applicable. Not applicable.

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

No additional information available
SECTION 10: Stability and reactivity

10.1. Reactivity
No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None.

10.4. Conditions to avoid
None.

10.5. Incompatible materials
None.

10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure: Inhalation
Acute toxicity: Not classified

PTG-4001
LD50 oral rat =

Hydrogen sulfide (7783-06-4)
LC50 inhalation rat (mg/l) 0.99 mg/l (Exposure time: 1 h)
LC50 inhalation rat (ppm) 356 ppm/4h
ATE US (gases) 356.000 ppmv/4h
ATE US (vapours) 0.990 mg/l/4h
ATE US (dust, mist) 0.990 mg/l/4h

Carbon monoxide (630-08-0)
LC50 inhalation rat (ppm) 3760 ppm/1h
ATE US (gases) 1880.000 ppmv/4h

Skin corrosion/irritation: Not classified
pH: Not applicable.
Serious eye damage/irritation: Not classified
pH: Not applicable.
Respiratory or skin sensitisation: 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

SECTION 12: Ecological information

12.1. Toxicity

Hydrogen sulfide (7783-06-4)
LC50 fish 1 0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
### 12.2. Persistence and degradability

**PTG-4001**

**Hydrogen sulfide (7783-06-4)**
Persistence and degradability: No ecological damage caused by this product.

**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.

**Carbon dioxide (124-38-9)**
Persistence and degradability: No ecological damage caused by this product.

**Methane (74-82-8)**
Persistence and degradability: The substance is biodegradable. Unlikely to persist.

### 12.3. Bioaccumulative potential

**PTG-4001**

**Log Pow**
Not applicable.

**Log Kow**
Not applicable.

**Bioaccumulative potential**
No ecological damage caused by this product.

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

**BCF fish 1**
(no bioaccumulation expected)

**Log Pow**
Not applicable.

**Log Kow**
Not applicable.

**Bioaccumulative potential**
No data available.

**Carbon monoxide (630-08-0)**

**Log Kow**
Not applicable.

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

**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.

**Carbon dioxide (124-38-9)**

**BCF fish 1**
(no bioaccumulation)

**Log Pow**
0.83

**Log Kow**
Not applicable.

**Bioaccumulative potential**
No ecological damage caused by this product.

**Methane (74-82-8)**

**Log Pow**
1.09

**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-4001**

**Mobility in soil**
No data available.

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

**Mobility in soil**
No data available.

**Ecology - soil**
Because of its high volatility, the product is unlikely to cause ground or water pollution.
Carbon monoxide (630-08-0)
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.

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

Carbon dioxide (124-38-9)
Mobility in soil: No data available.
Ecology - soil: No ecological damage caused by this product.

Methane (74-82-8)
Ecology - soil: Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5. Other adverse effects
Effect on ozone layer: None.
Effect on the global warming: Contains greenhouse gas(es) not covered by 842/2006/EC.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Waste treatment methods: Do not attempt to dispose of residual or unused quantities. Return container to supplier.
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.
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.
PTG-4001
Safety Data Sheet

TDG
Transport document description : UN1956 Compressed Gas, n.o.s., 2.2
UN-No. (TDG) : UN1956
TDG Proper Shipping Name : Compressed Gas, n.o.s.
TDG Primary Hazard Classes : 2.2 - Class 2.2 - Non-Flammable, Non-Toxic Gas.

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

Civil Aeronautics Law : Gases under pressure/Gases nonflammable nontoxic under pressure(Hazardous materials notice Appendixed Table 1 Article 194 of the Enforcement Regulations)

SECTION 15: Regulatory information

15.1. US Federal regulations

PTG-4001
Listed on the United States SARA Section 302
Subject to reporting requirements of United States SARA Section 313
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Hydrogen sulfide (7783-06-4)
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 313 - Emission Reporting : 1.0 %

Carbon monoxide (630-08-0)
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

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

Carbon dioxide (124-38-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Methane (74-82-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
PTG-4001
Listed on the Canadian DSL (Domestic Substances List)
WHMIS Classification : Class A - Compressed Gas

08/25/2015
EN (English)
SDS ID: PTG-4001
### Hydrogen sulfide (7783-06-4)

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A - Compressed Gas</td>
<td></td>
</tr>
<tr>
<td>Class B Division 1 - Flammable Gas</td>
<td></td>
</tr>
<tr>
<td>Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects</td>
<td></td>
</tr>
<tr>
<td>Class D Division 2 Subdivision B - Toxic material causing other toxic effects</td>
<td></td>
</tr>
</tbody>
</table>

Listed on the Canadian DSL (Domestic Substances List)

### Carbon monoxide (630-08-0)

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A - Compressed Gas</td>
<td></td>
</tr>
<tr>
<td>Class B Division 1 - Flammable Gas</td>
<td></td>
</tr>
<tr>
<td>Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects</td>
<td></td>
</tr>
<tr>
<td>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects</td>
<td></td>
</tr>
</tbody>
</table>

Listed on the Canadian DSL (Domestic Substances List)

### Oxygen (7782-44-7)

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A - Compressed Gas</td>
<td></td>
</tr>
<tr>
<td>Class C - Oxidizing Material</td>
<td></td>
</tr>
</tbody>
</table>

Listed on the Canadian DSL (Domestic Substances List)

### Nitrogen (7727-37-9)

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A - Compressed Gas</td>
<td></td>
</tr>
</tbody>
</table>

Listed on the Canadian DSL (Domestic Substances List)

### Carbon dioxide (124-38-9)

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A - Compressed Gas</td>
<td></td>
</tr>
</tbody>
</table>

Listed on the Canadian DSL (Domestic Substances List)

### Methane (74-82-8)

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A - Compressed Gas</td>
<td></td>
</tr>
<tr>
<td>Class B Division 1 - Flammable Gas</td>
<td></td>
</tr>
</tbody>
</table>

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

No additional information available

### National regulations

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

- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on the IEGuc (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)

#### Carbon monoxide (630-08-0)

- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on the IEGuc (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 the IEGuc (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 the IEGuc (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

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<thead>
<tr>
<th>Carbon dioxide (124-38-9)</th>
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<tr>
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**PTG-4001**

**Safety Data Sheet**


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### SECTION 16: Other information

**Revision date**: 07/01/2015

**Other information**: 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. 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-statements:**

<table>
<thead>
<tr>
<th>Acute Tox. 2 (Inhalation:gas)</th>
<th>Acute toxicity (inhalation:gas) Category 2</th>
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<tr>
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<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>
<td>Hazardous to the aquatic environment — Acute Hazard, Category 3</td>
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<td>Compressed gas</td>
<td>Gases under pressure: Compressed gas</td>
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<td>Flam. Gas 1</td>
<td>Flammable gases, Category 1</td>
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<tr>
<td>Liquefied gas</td>
<td>Gases under pressure: Liquefied gas</td>
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<td>Ox. Gas 1</td>
<td>Oxidising Gases, Category 1</td>
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<tr>
<td>H220</td>
<td>EXTREMELY FLAMMABLE GAS</td>
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<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>
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<tr>
<td>H331</td>
<td>TOXIC IF INHALED</td>
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<tr>
<td>H400</td>
<td>VERY TOXIC TO AQUATIC LIFE</td>
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<tr>
<td>H402</td>
<td>HARMFUL TO AQUATIC LIFE</td>
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**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.