

SECTION: 1. Product and company identification

1.1. Product identifier

Product form : Mixture
 Product name : PTG-4048
 Formula : METHANE % 4, HYDROGEN % 4, CARBON DIOXIDE % 5, CARBON MONOXIDE % 5, NITROGEN % 5, OXYGEN <= 5 %, HELIUM BALANCE

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

| | |
|-----------------------------------|---------------------------|
| Manufactured For: | By: |
| Scientific Gas Australia Pty Ltd. | PortaGas (Praxair, Inc.) |
| Unit 10, 12 Anderson Street | 1202 E Sam Houston Pkwy S |
| Banksmeadow NSW, 2019 - Australia | Pasadena, TX 77503 |
| T PH 1300 880 531 | T 281-928-6477 |

1.4. Emergency telephone number

Emergency number : Onsite Emergencies: 1-800-645-4633; Australian Poison Information Centre: 13 11 26;
 Australian Fire Brigade: 000
 CHEMTREC: USA 1-800-424-9300, International 001-703-527-3887 (Collect calls accepted, contract 17729)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-AU)

Flam. Gas 1 H220
 Press. Gas (Comp.) H280
 Repr. 1A H360
 STOT RE 1 H372

2.2. Label elements

GHS AU labelling

Hazard pictograms (GHS-AU) :



Signal word (GHS-AU) :

DANGER

Hazard statements (GHS AU) :

H220 - **EXTREMELY FLAMMABLE GAS**
 H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED
 H360 - MAY DAMAGE FERTILITY OR THE UNBORN CHILD
 H372 - CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE

Precautionary statements (GHS-AU) :

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Heat, Hot surfaces, Open flames, Sparks
 P260 - Do not breathe gas/vapors
 P264 - Wash exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P308+P313 - If exposed or concerned: Get medical advice/attention
 P314 - Get medical advice/attention if you feel unwell
 P377 - LEAKING GAS FIRE: Do not extinguish, unless leak can be stopped safely.

P381 - Eliminate all ignition sources if safe to do so.
 P403 - Use and store only outdoors or in a well-ventilated place.
 P405 - Store locked up
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.
 CGA-PG27 - Read and follow the Safety Data Sheet (SDS) before use.
 CGA-PG21 - Open valve slowly.
 CGA-PG12 - Do not open valve until connected to equipment prepared for use.
 CGA-PG11 - Never put cylinders into unventilated areas of passenger vehicles.
 CGA-PG10 - Use only with equipment rated for cylinder pressure.
 CGA-PG06 - Close valve after each use and when empty.
 CGA-PG05 - Use a back flow preventive device in the piping.
 CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F).

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % |
|-----------------|--------------------|------|
| Helium | (CAS No) 7440-59-7 | 72 |
| Carbon dioxide | (CAS No) 124-38-9 | 5 |
| Carbon monoxide | (CAS No) 630-08-0 | 5 |
| Oxygen | (CAS No) 7782-44-7 | <= 5 |
| Nitrogen | (CAS No) 7727-37-9 | 5 |
| Methane | (CAS No) 74-82-8 | 4 |
| Hydrogen | (CAS No) 1333-74-0 | 4 |

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. Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. Call a physician.
- First-aid measures after skin contact : The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.
- 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 : Carbon dioxide, Dry chemical, Water spray or fog. Use extinguishing media appropriate for surrounding fire.

HazChem code : 2SE.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : **EXTREMELY FLAMMABLE GAS.** If venting or leaking gas catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive reignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering an area, especially a confined area, check the atmosphere with an appropriate device.
- Explosion hazard : **EXTREMELY FLAMMABLE GAS.** Forms explosive mixtures with air and oxidizing agents.
- 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. 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 their provincial and local fire regulations.
- Protection during firefighting : **DANGER! FLAMMABLE, HIGH PRESSURE GAS..**
- 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

- General measures : Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Ensure adequate air ventilation. Evacuate area. Try to stop release. Monitor concentration of released product. **DANGER: Flammable, liquefied gas. FORMS EXPLOSIVE MIXTURES WITH AIR.** Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if safe to do so. Reduce vapors with fog or fine water spray, taking care not to spread liquid with water. Shut off flow if safe to do so. Ventilate area or move container to a well-ventilated area. Flammable vapors may spread from leak and could explode if reignited by sparks or flames. Explosive atmospheres may linger. Before entering area, especially confined areas, check atmosphere with an appropriate device.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Try to stop release. 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 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment.

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 only where temperature will not exceed 125°F (52°C). Post "No Smoking/No Open Flames" signs in storage and use areas. There must be no sources of ignition. Separate packages and protect against potential fire and/or explosion damage following appropriate codes and requirements (e.g. NFPA 30, NFPA 55, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. For other precautions in using this product, see section 16.

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

| Carbon dioxide (124-38-9) | | |
|----------------------------|-------------------------------------|---|
| ACGIH | ACGIH TLV-TWA (ppm) | 5000 ppm |
| ACGIH | ACGIH TLV-STEL (ppm) | 30000 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 9000 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 5000 ppm |
| AU SWA TWA PPM | TWA (ppm) | 5000 ppm 12500 ppm (in coal mines) |
| AU SWA TWA MGM3 | TWA (mg/m ³) | 9000 mg/m ³ 22500 mg/m ³ (in coal mines) |
| AU STEL PPM | STEL (ppm) | 30000 ppm |
| AU SWA STEL MGM3 | STEL (mg/m ³) | 9000 mg/m ³ 22500 mg/m ³ (in coal mines) |
| Carbon monoxide (630-08-0) | | |
| ACGIH | ACGIH TLV-TWA (ppm) | 25 ppm |

| Carbon monoxide (630-08-0) | | |
|----------------------------|-------------------------------------|---|
| ACGIH | Biological Exposure Indices (BEI) | 3.5 % of hemoglobin Parameter: Carboxyhemoglobin - Medium: blood - Sampling time: end of shift (background, nonspecific) 20 ppm Parameter: Carbon monoxide - Medium: end-exhaled air - Sampling time: end of shift (background, nonspecific) |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 55 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 50 ppm |
| AU SWA TWA PPM | TWA (ppm) | 30 ppm |
| AU SWA TWA MGM3 | TWA (mg/m ³) | 34 mg/m ³ |
| AU SWA STEL MGM3 | STEL (mg/m ³) | 34 mg/m ³ |
| Methane (74-82-8) | | |
| ACGIH | Not established | |
| USA OSHA | Not established | |
| Hydrogen (1333-74-0) | | |
| ACGIH | Remark (ACGIH) | Simple asphyxiant |
| USA OSHA | Not established | |
| Oxygen (7782-44-7) | | |
| ACGIH | Not established | |
| USA OSHA | Not established | |
| Nitrogen (7727-37-9) | | |
| ACGIH | Not established | |
| USA OSHA | Not established | |
| Helium (7440-59-7) | | |
| ACGIH | Not established | |
| USA OSHA | Not established | |

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 and under strictly controlled conditions. Preferably use only permanent leak-tight installations (e.g. welded pipes). Ensure exposure is below occupational exposure limits (where available). Use an explosion-proof local exhaust system. Local exhaust and general ventilation must be adequate to meet exposure standards. MECHANICAL (GENERAL): **Inadequate - Use only in a closed system.** Use explosion proof equipment and lighting.
- Personal protective equipment : Gloves. Safety glasses.
- 

- 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 AS/NZS 1336 and AS/NZS 1337.
- Skin and body protection : Wear work gloves and metatarsal shoes for cylinder handling. Protective equipment where needed. Select in accordance with AS/NZS 2161, AS/NZS 2210.1, and AS/NZS 4503.

| | |
|---------------------------|--|
| Respiratory protection | : When workplace conditions warrant respirator use, follow a respiratory protection program that meets AS/NSZ 1715, AS/NSZ 1716, 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. 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. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

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

No additional information available

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Carbon monoxide (630-08-0) | |
|-----------------------------------|--------------|
| LC50 inhalation rat (ppm) | 3760 ppm/1h |
| ATE US (gases) | 1880 ppmV/4h |

Skin corrosion/irritation : Not classified

pH: Not applicable.

Serious eye damage/irritation : Not classified

pH: Not applicable.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : MAY DAMAGE FERTILITY OR THE UNBORN CHILD.

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No known ecological damage caused by this product.

12.2. Persistence and degradability

| PTG-4048 | |
|----------------------------------|--|
| 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. |
| Hydrogen (1333-74-0) | |
| 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. |
| Helium (7440-59-7) | |
| Persistence and degradability | No ecological damage caused by this product. |

12.3. Bioaccumulative potential

| PTG-4048 | |
|---------------------------|--|
| Log Pow | Not applicable. |
| Log Kow | Not applicable. |
| Bioaccumulative potential | No ecological damage caused by this product. |



PTG-4048

Safety Data Sheet PTG-4048

Prepared in accordance with the model Work Health and Safety Regulations

Date of issue: 05/25/2015 Revision date: 02/13/2020 Version: 1.1

| 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. |
| Carbon monoxide (630-08-0) | |
| Log Kow | Not applicable. |
| 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. |
| Hydrogen (1333-74-0) | |
| BCF fish 1 | (no bioaccumulation expected) |
| 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. |
| Nitrogen (7727-37-9) | |
| Log Pow | Not applicable. |
| Log Kow | Not applicable. |
| Bioaccumulative potential | No ecological damage caused by this product. |
| Helium (7440-59-7) | |
| Log Pow | Not applicable for inorganic gases. |
| Log Kow | Not applicable. |
| Bioaccumulative potential | No ecological damage caused by this product. |

12.4. Mobility in soil

| PTG-4048 | |
|-----------------------------------|---|
| Mobility in soil | No data available. |
| Carbon dioxide (124-38-9) | |
| Mobility in soil | No data available. |
| Ecology - soil | No ecological damage caused by this product. |
| Carbon monoxide (630-08-0) | |
| Mobility in soil | No data available. |
| Methane (74-82-8) | |
| Ecology - soil | Because of its high volatility, the product is unlikely to cause ground or water pollution. |
| Hydrogen (1333-74-0) | |
| 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. |
| Helium (7440-59-7) | |
| Mobility in soil | No data available. |
| Ecology - soil | No ecological damage caused by this product. |

12.5. Other adverse effects

Effect on ozone layer : None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Must not be discharged to atmosphere. Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at <http://www.eiga.org> for more guidance on suitable disposal methods. Ensure that the emission levels from local regulations or operating permits are not exceeded.

Product/Packaging disposal recommendations : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

SECTION 14: Transport information

Transport of Australian Dangerous Goods

UN-No. (ADG) : UN1954

Proper Shipping Name (ADG) : COMPRESSED GAS, FLAMMABLE, N.O.S.

Class (ADG) : 2.1 - Class 2.1 - Flammable gas

Danger labels (ADG) : 2.1 - Flammable gases



Special provision (ADG) : 274

In accordance with DOT

Transport document description : UN1954 Compressed gas, flammable, n.o.s., 2.1

UN-No.(DOT) : UN1954

Proper Shipping Name (DOT) : Compressed gas, flammable, n.o.s.

Class (DOT) : 2.1 - Class 2.1 - Flammable gas

Hazard labels (DOT) : 2.1 - Flammable gas



DOT Symbols : G - Identifies proper shipping name (PSN) requiring the addition of technical name(s) in parentheses following the PSN.

Additional information

Emergency Response Guide (ERG) Number : 115

HazChem code : 2SE.

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.

Transport by sea

UN-No. (IMDG) : 1954

Proper Shipping Name (IMDG) : COMPRESSED GAS, FLAMMABLE, N.O.S.



PTG-4048

Safety Data Sheet PTG-4048

Prepared in accordance with the model Work Health and Safety Regulations

Date of issue: 05/25/2015 Revision date: 02/13/2020 Version: 1.1

| | |
|---------------------------|-------------|
| Class (IMDG) | : 2 - Gases |
| Limited quantities (IMDG) | : None. |
| EmS-No. (1) | : F-D |
| MFAG-No | : 620 |
| EmS-No. (2) | : S-U |

Air transport

| | |
|---|-------------------------------------|
| UN-No. (IATA) | : 1954 |
| Proper Shipping Name (IATA) | : Compressed gas, flammable, n.o.s. |
| Class (IATA) | : 2 |
| Instruction "cargo" (ICAO) | : 200 |
| Instruction "passenger" (ICAO) | : FORBIDDEN |
| Instruction "passenger" - Limited quantities (ICAO) | : FORBIDDEN |

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

Carbon dioxide (124-38-9)

Listed on the Canadian DSL (Domestic Substances List)

Carbon monoxide (630-08-0)

Listed on the Canadian DSL (Domestic Substances List)

Methane (74-82-8)

Listed on the Canadian DSL (Domestic Substances List)

Hydrogen (1333-74-0)

Listed on the Canadian DSL (Domestic Substances List)

Oxygen (7782-44-7)

Listed on the Canadian DSL (Domestic Substances List)

Nitrogen (7727-37-9)

Listed on the Canadian DSL (Domestic Substances List)

Helium (7440-59-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

15.2.2. National regulations

No additional information available



PTG-4048

Safety Data Sheet PTG-4048

Prepared in accordance with the model Work Health and Safety Regulations

Date of issue: 05/25/2015 Revision date: 02/13/2020 Version: 1.1

15.3. US State regulations

| PTG-4048() | |
|---|----|
| U.S. - California - Proposition 65 - Carcinogens List | No |
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |

| Carbon dioxide (124-38-9) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | No | No | No | |

| Carbon monoxide (630-08-0) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | Yes | No | No | |

| Methane (74-82-8) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | No | No | No | |

| Hydrogen (1333-74-0) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | No | No | No | |

| Oxygen (7782-44-7) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | No | No | No | |

| Nitrogen (7727-37-9) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | No | No | No | |

| Helium (7440-59-7) | | | | |
|---|---|---|---|-----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | Non-significant risk level (NSRL) |
| No | No | No | No | |

| Carbon dioxide (124-38-9) | | | | |
|---|--|--|--|--|
| U.S. - Massachusetts - Right To Know List | | | | |



PTG-4048

Safety Data Sheet PTG-4048

Prepared in accordance with the model Work Health and Safety Regulations

Date of issue: 05/25/2015 Revision date: 02/13/2020 Version: 1.1

Carbon dioxide (124-38-9)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Carbon monoxide (630-08-0)

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

Methane (74-82-8)

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

Hydrogen (1333-74-0)

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

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

Helium (7440-59-7)

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

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. 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.

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SDS Australia - Praxair

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.