1. PRODUCT IDENTIFICATION

CHEMICAL NAME; CLASS: NONFLAMMABLE GAS MIXTURE

CONTAINING ONE OR MORE OF THE FOLLOWING COMPONENTS IN A NITROGEN OR HELIUM BALANCE GAS: CARBON DIOXIDE, 0.005-50%; OXYGEN, 0-23.5%; METHANE, 0-2.5%; CARBON MONOXIDE, 0.0005-1.0%.

SYNONYMS: Not Applicable

CHEMICAL FAMILY NAME: Not Applicable

FORMULA: Not Applicable

Document Number: 50057

Note: The Material Safety Data Sheet is for this gas mixture supplied in cylinders with 33 cubic feet (935 liters) or less gas capacity (DOT- 39 cylinders). This MSDS has been developed for various gas mixtures with the composition of components within the ranges listed in Section 2 (Composition and Information on Ingredients). Refer to the product label for information on the actual composition of the product.

PRODUCT USE:

U.S. SUPPLIER/MANUFACTURER’S NAME: CALGAZ

ADDRESS: 281 Chesapeake Drive Cambridge, MD 21613

BUSINESS PHONE: 1-410-228-6400 (8 a.m. to 5 p.m. U.S. EST)

General MSDS Information: 1-713-968-0440

Fax on Demand: 1-800-231-1366

EMERGENCY PHONE: Chemtrec: United States/Canada/Puerto Rico: 1-800-424-9300 (24-hours)

Chemtrec International: 1-703-527-3887 (24-hours)

2. COMPOSITION and INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>mole %</th>
<th>EXPOSURE LIMITS IN AIR</th>
<th>ACGIH-TLV</th>
<th>OSHA-PEL</th>
<th>NIOSH IDLH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide 630-08-0</td>
<td>0.0005-1.0%</td>
<td>25</td>
<td>NE</td>
<td>50</td>
<td>35</td>
<td>(Vacated 1989 PEL)</td>
<td></td>
</tr>
<tr>
<td>Methane 74-82-8</td>
<td>0-2.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>There are no specific exposure limits for Methane. (SA)</td>
</tr>
<tr>
<td>Oxygen 7782-44-7</td>
<td>0-23.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>There are no specific exposure limits for Oxygen.</td>
</tr>
<tr>
<td>Carbon Dioxide 124-38-9</td>
<td>0.0005-50.0%</td>
<td>5000</td>
<td></td>
<td>30,000</td>
<td></td>
<td></td>
<td>10,000</td>
</tr>
<tr>
<td>Helium 7440-59-7</td>
<td>0.0-99.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>There are no specific exposure limits for Helium. Helium is a simple asphyxiant (SA).</td>
</tr>
<tr>
<td>Nitrogen 7727-37-9</td>
<td>0.0-99.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>There are no specific exposure limits for Nitrogen. Nitrogen is a simple asphyxiant (SA).</td>
</tr>
</tbody>
</table>

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This is a colorless gas mixture which is odorless or which has a sharp odor, due to the presence of Carbon Dioxide. A significant, potential hazard associated with releases of this gas mixture is exposure to Carbon Dioxide or Carbon Monoxide, components of this gas mixture. Inhalation of this gas mixture can cause nausea, dizziness, headache, mental confusion, increased blood pressure and respiratory rate, collapse, and death. Carbon Monoxide is a potential reproductive toxin. This gas mixture may irritate the eyes. Additionally, releases of this gas mixture may produce oxygen-deficient atmospheres (especially in small confined spaces or other poorly-ventilated environments); individuals in such atmospheres may be asphyxiated.

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant route of overexposure for this gas mixture is by inhalation.

INHALATION: Due to the small size of an individual cylinder of this gas mixture, no unusual health effects from overexposure to the product are anticipated under routine circumstances of use. A potential, significant health hazard associated with this gas mixture is the potential for overexposure to Carbon Dioxide. Carbon Dioxide is an asphyxiant and a powerful cerebral vasodilator. If the concentration of Carbon Dioxide reaches 10% or more, suffocation can occur rapidly. Inhalation of low concentrations (3-5%) has no known permanent harmful effects.

CONCENTRATION OF CARBON DIOXIDE SYMPTOMS OF EXPOSURE

1%: Slight increase in breathing rate.
2%: Breathing rate increases to 50% above normal; headache; tiredness.
3%: Breathing increases to twice normal rate, becoming labored; weak narcotic effect; impaired hearing; headache; increase in blood pressure and pulse rate.
4%-5%: Breathing increases to four times normal rate; symptoms of intoxication become evident and slight choking may be felt.
5%-10%: Characteristic sharp odor noticeable. Very labored breathing, headache, visual impairment and ringing in the ears. Judgment may be impaired, followed by loss of consciousness.
> 10%: Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation.

It is also important to note that inhalation exposures to atmospheres containing more than the Threshold Limit Value of Carbon Dioxide (25 ppm), another component of this gas mixture, can result in serious health consequences. Carbon Monoxide is classified as a chemical asphyxiant, producing a toxic action by combining with the hemoglobin of the blood and replacing the available oxygen. Through this replacement, the body is deprived of the required oxygen, and asphyxiation occurs.

Since the affinity of carbon monoxide for hemoglobin is about 200-300 times that of oxygen, only a small amount of Carbon Monoxide will cause a toxic reaction to occur. Carbon Monoxide exposures in excess of 50 ppm will produce symptoms of poisoning if breathed for a sufficiently long time. If this gas mixture is released in a small, poorly ventilated area (i.e. an enclosed or confined space), symptoms which may develop include the following:
install automatic monitoring equipment to detect the levels of Carbon Dioxide, Carbon Monoxide and oxygen.

However, containers, when involved in fire, may rupture or burst in the heat of the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS
media appropriate for surrounding fire.

For emergency disposal, secure the cylinder and slowly discharge the gas to the atmosphere in a well-ventilated area or outdoors. Allow the gas mixture to dissipate. If necessary, monitor the surrounding area (and the original area of the release) for oxygen, Carbon Dioxide, and Carbon Monoxide. Carbon Dioxide is a potential reproductive toxin. Refer to Section 11 (Toxicological Information) of this MSDS for further information.

TARGET ORGANS: ACUTE: Respiratory system, blood system, cardiovascular system, eyes. CHRONIC: reproductive system, eyes.

4. FIRST-AID MEASURES

RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS GAS MIXTURE WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus must be worn. No unusual health effects are anticipated after exposure to this gas mixture, due to the small cylinder size. If any adverse symptom develops after overexposure to this gas mixture, remove victim(s) to fresh air as quickly as possible. Only trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation if necessary. Victim(s) who experience any adverse effect after overexposure to this gas mixture must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physicians or other health professionals with victim(s).

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing respiratory conditions and other disorders involving the “Target Organs” (See Section 3, Hazard Identification) may be aggravated by overexposure to this gas mixture. Carbon Monoxide, a component of this gas mixture, can aggravate some diseases of the cardiovascular system, such as coronary artery disease and angina pectoris.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure. If necessary, treat for Carbon Monoxide poisoning. Hyperbaric oxygen is the most efficient antidote to Carbon Monoxide poisoning, the optimum range being 2-2.5 atm. A special mask, or, preferably, a compression chamber to utilize oxygen at these pressures is required. Avoid administering stimulant drugs.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable.
AUTOIGNITION TEMPERATURE: Not applicable.
FLAMMABLE LIMITS (in air by volume, %): Not applicable.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This gas mixture is not flammable; however, containers, when involved in fire, may rupture or burst in the heat of the fire.

SPECIAL FIRE-FIGHTING PROCEDURES: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

LEAK RESPONSE: Due to the small size and content of the cylinder, an accidental release of this gas mixture presents significantly less risk of an oxygen-deficient environment and other safety hazards than a similar release from a larger cylinder. However, as with any chemical release, extreme caution must be used in emergency response procedures, in the event of a release in which the atmosphere is unknown, and in which other chemicals are potentially involved, evacuate immediate area. Such releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a leak, clear the affected area and protect people.

For emergency disposal, secure the cylinder and slowly discharge the gas to the atmosphere in a well-ventilated area or outdoors. Allow the gas mixture to dissipate. If necessary, monitor the surrounding area (and the original area of the release) for oxygen, Carbon Dioxide, and Carbon Monoxide. Carbon Dioxide and Carbon Monoxide level must be below exposure level listed in Section 2 (Composition and Information on Ingredients) before non-emergency personnel are allowed to re-enter area. If leaking incidentally from the cylinder or its valve, contact your supplier.

7. HANDLING and USE

WORK PRACTICES and HYGIENE PRACTICES: Be aware of any signs of dizziness or fatigue; exposures to fatal concentrations of this gas mixture could occur without any significant warning symptoms, due to oxygen deficiency. Do not attempt to repair, adjust, or in any other way modify the cylinders containing this gas mixture. If there is a malfunction or another type of operational problem, contact nearest distributor immediately.

STORAGE and HANDLING PRACTICES: Cylinders should be firmly secured to prevent falling or being knocked-over. Cylinders must be protected from the environment and preferably kept to room temperature (approximately 21°C [70°F]). Cylinders should be stored in dry, well-ventilated areas, away from sources of heat, ignition, and direct sunlight. Protect cylinders against physical damage.

Full and empty cylinders should be segregated. Use a first-in, first-out inventory system to prevent full containers from being stored for long periods of time. These cylinders are not refillable. WARNING! Do not refill DOT 39 cylinders. To do so may cause personal injury or property damage.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION and ENGINEERING CONTROLS: No special ventilation systems or engineering controls are needed under normal circumstances of use. As with all chemicals, use this gas mixture in well-ventilated areas. If this gas mixture is used in a poorly-ventilated area, install automatic monitoring equipment to detect the levels of Carbon Dioxide, Carbon Monoxide and oxygen.
8. EXPOSURE CONTROLS - PERSONAL PROTECTION (continued)

RESPIRATORY PROTECTION: No special respiratory protection is required under normal circumstances of use. Use supplied air respiratory protection if Carbon Dioxide or Carbon Monoxide levels exceed limits given in Section 2 (Composition Information on Ingredients) and oxygen levels are below 19.5% or if unknown during emergency response to a release of this gas mixture. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use a full-facepiece pressure-demand/SCBA or a full facepiece, self-contained breathing apparatus with auxiliary supply of air is required under OSHA’s Respiratory Protection Standard (1910.134-1998).

Respiratory selection guidelines from NIOSH for Carbon Dioxide are provided below for information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise specified, the following information is for Carbon Dioxide, a main component of this gas mixture.

GAS DENSITY @ 21.1°C (70°F) and 1 atm: 0.083 lb/cu ft (1.326 kg/m³)

LIQUID DENSITY (°F) and 1 atm: 0.1144 lb/ft³ (1.833 kg/m³)

LIQUID VAPOR PRESSURE @ 32°F (0°C) and 1 atm: 6.8 psig (47.3 kPa)

FREEZING/MELTING POINT: (sublimation temperature) -78.5°C (-109.3°F)

TRIPLE POINT: -56.5°C (-69.5°F) @ 64.0 psig (4160 kPa)

SPECIFIC GRAVITY (air = 1) @ 21.1°C (71.2°F): 1.522

ODOR THRESHOLD: Not available.

EVAPORATION RATE (nBuAc = 1): Not applicable.

VAPOR PRESSURE @ 21.1°C (70°F): 0.0103 lb/cu ft (1.165 kg/m³)

COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.

Unless otherwise specified, the following information is for Helium, a main component of this gas mixture.

GAS DENSITY @ 0°C (32°F) and 1 atm: 0.103 lb/cu ft (1.153 kg/m³)

SPECIFIC GRAVITY (air = 1) @ 21.1°C (70°F): 0.1381

SOLUBILITY IN WATER vol/vol @ 0°C (32°F) and 1 atm: 0.0094

EVAPORATION RATE (nBuAc = 1): Not applicable.

VAPOR PRESSURE @ 21.1°C (70°F): psig = not applicable.

COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.

10. STABILITY and REACTIVITY

STABILITY: Normally stable in gaseous state.

DECOMPOSITION PRODUCTS: The thermal decomposition products of Methane include carbon oxides. The other components of this gas mixture do not decompose, per se, but can react with other compounds in the heat of a fire.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Titanium will burn in Nitrogen (the main component of this gas mixture). Lithium reacts slowly with Nitrogen ambient atmosphere (Carbon Dioxide, Methane) are also incompatible with strong oxidizers (i.e. chlorine, chlorine pentafluoride, oxygen, oxygen difluoride, and nitrogen trifluoride). Due to the presence of Carbon Dioxide, this gas mixture may be incompatible with a variety of metals, alloys, and metal carboxyhemoglobins (e.g., copper, chromium, and zincium). Carbon Dioxide will react with alkaline materials to form carbonates and bicarbonates. Carbon Monoxide is mildly corrosive to nickel and iron (especially at high temperatures and pressures).

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Contact with incompatible materials. Cylinders exposed to high temperatures or direct flame can rupture or burst.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The following toxicity data are available for the components of this gas mixture.

CARBON DIOXIDE:

LC50 (Inhalation-Mouse) 55 ppm/4 hours: male 6 day(s) pre-mating: 4000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: male fertility index (e.g. # males impregnating females per # males exposed to fertility non- pregnant female): Specific Developmental Abnormalities: CO2 (Inhalation-Mouse) 2000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants): Specific Developmental Abnormalities: CO2 (Inhalation-Mouse) 4000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: blood methemoglobinemia: CO2 (Inhalation-Mouse) 8000 ppm/24 hours: male 7 day(s) pre-mating: 7500 ppm/24 hours: male 10 day(s) after conception: Reproductive: Fertility: blood methemoglobinemia:

LC50 (Inhalation-Human) 600 mg/m³/10 minutes: Behavioral: headache

LC50 (Inhalation-Man) 650 ppm/45 minutes: methemoglobinemia: CO2 (Inhalation-Rabbit) 8000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: methemoglobinemia: CO2 (Inhalation-Rat) 8000 ppm/24 hours: male 7 day(s) pre-mating: 7500 ppm/24 hours: male 10 day(s) after conception: Reproductive: Fertility: blood methemoglobinemia:

LCLo (Inhalation-Mouse) 4000 ppm/30 minutes

LCLo (Inhalation-Human) 6000 ppm/10 minutes: Behavioral: headache

LCLo (Inhalation-Man) 650 ppm/45 minutes: methemoglobinemia:

LCLo (Inhalation-Rabbit) 4000 ppm

LCLo (Inhalation-Rat) 1807 ppm/4 hours: male fertility index (e.g. # males impregnating females per # males exposed to fertility non- pregnant female): Specific Developmental Abnormalities: CO2 (Inhalation-Mouse) 2000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants): Specific Developmental Abnormalities: CO2 (Inhalation-Mouse) 4000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: blood methemoglobinemia:

LCLo (Inhalation-Human) 600 mg/m³/10 minutes: Behavioral: headache

LCLo (Inhalation-Man) 650 ppm/45 minutes: methemoglobinemia: CO2 (Inhalation-Rabbit) 8000 ppm/24 hours: female 10 day(s) after conception: Reproductive: Fertility: blood methemoglobinemia:

LCLo (Inhalation-Rat) 8000 ppm/14 days-intermittent: Cardiac: other changes

Page 3 OF 5

EFFECIVE DATE: FEBRUARY 16, 2011

NON-FUMABLE GAS MIXTURE MSDS - 50057
TOXICITY DATA: The following toxicity data are available for the components of this gas mixture:

**CARBON MONOXIDE (continued):**

- **TCLo (Inhalation-Rat) 30 ppm/8 hours:** Female 1-30 day(s) after conception: Reproductive: Effects on Newborn: mortality (e.g., dead and/or resorbed implants per total number of implants);
- **TCLo (Inhalation-Rat) 150 ppm/24 hours:** Female 0-20 day(s) after conception: Reproductive: Effects on Newborn: cardiovascular (circulatory) system.
- **TCLo (Inhalation-Rabbit) 200 ppm/5 hours/20 days:** Male 1-30 day(s) after conception: Reproductive: Effects on Newborn: cardiovascular (circulatory) system.
- **TCLo (Inhalation-Mouse) 125 ppm/24 hours:** Male 8 day(s) after conception: Reproductive: Effects on Newborn: cardiovascular (circulatory) system.

**HEMOLYTIC RESPONSE:** A hemolytic response is a chemical which causes damage to red blood cells.

**FETOTOXICITY:** Reproductive: Effects on Embryo or Fetus: teratogenicity (except death, e.g., stunted fetus, fetal death)

**PDLO (Inhalation-Mouse) 8 ppm/24 hours:** Male 8 day(s) after conception: Reproductive: Fertility: litter size (e.g., if litters per litter measured before birth); Effects on Embryo or Fetus: fetotoxicity (except death, e.g., stunted fetus, fetal death)

**NITROGEN:**

- **Water solubility:** 3.3 ml/100 cc at 0°C
- **OXYGEN:**
  - **Water solubility:** 1 volume Oxygen/32 volumes water at 20°C
  - **LD (sunfish):** 1.5 ppm/1-6 hours, fresh water.

**CO2:**
- **Water solubility:** 3.3 volumes CO2/100 volumes water at 0°C
- **LD (sunfish):** 1.5 ppm/1-6 hours, fresh water.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: The components of this gas mixture occur naturally in the atmosphere. The gas will be dissipated rapidly in well-ventilated areas. The following environmental data are applicable to the components of this gas mixture.

**CARBON DIOXIDE:**
- **Food chain concentration potential:** None.
- **Biological Oxygen Demand:** None.

**CARBON MONOXIDE:**
- **Water solubility:** 3.3 ml/100 cc at 0°C, 2.3 ml at 20°C
- **OXYGEN:**
  - **Water solubility:** 1 volume Oxygen/32 volumes water at 20°C
  - **LD (sunfish):** 1.5 ppm/1-6 hours, fresh water.
- **METHANE:**
  - **Water solubility:** 0.4 volumes Methane/100 volumes water at 0°C, 1.6 volumes Methane/100 volumes water at 20°C
  - **LD (sunfish):** 2500 ppm/10 minutes

**EFFECT OF MATERIAL ON PLANTS OR ANIMALS:** The Carbon Monoxide component of this gas mixture can be deadly to exposed animal life, producing symptoms similar to those experienced by humans. Carbon Monoxide may also be harmful to plant life. The following information is available on the components of this gas mixture: CARBON MONOXIDE: Water solubility: Toxicity: 5-6%, no effect.

**EFFECT OF CHEMICAL ON AQUATIC LIFE:** No evidence is currently available on this gas mixture’s effects on aquatic life. The presence of more than a trace of the Carbon Monoxide component of this gas mixture is a hazard to fish. Additional aquatic toxicity data are available on this gas mixture’s components, as follows: CARBON MONOXIDE: Aquatic toxicity: 100-200 mg/L no time specified/organisms/fresh water. LD (sunfish): 1.5 ppm/1-6 hours, fresh water.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, or the applicable standards of Canada and its Provinces. Cylinders with undesired residual product may be safely vented outdoors with the proper regulator. For further information, refer to Section 15 (Other Information).

14. TRANSPORTATION INFORMATION

**THIS GAS MIXTURE IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION:**

PROPER SHIPPING NAME: Compressed gases, n.o.s. ("Oxygen, Nitrogen") for the component with the highest next concentration to Nitrogen.

**Hazard Class Number and Description:**
- **2.2 (Non-Flammable Gas)
- **UN Identification Number:**
  - **UN 1015
- **Label Group:**
  - **Non-Flammable Gas
- **DOT Label(S) Required:**
  - **Non-Flammable Gas
- **Marine Pollutant:**
  - **The components of this gas mixture are not classified by the DOT as Marine Pollutants (as defined by 49 CFR 172.101).

APPENDIX B:

**MARINE POLLUTANT:** The components of this gas mixture are not classified by the DOT as Marine Pollutants (as defined by 49 CFR 172.101).
SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a secure position, in a well-ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

Note: DOT 39 Cylinders ship in a strong outer cartoon (outer package). Pertinent shipping information goes on the outside of the outer package.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This gas is considered as Dangerous Goods, per regulations of Transport Canada.

PROPER SHIPPING NAME: Compressed gases, n.o.s. (*Oxygen, Nitrogen*) for the gas component with the next highest concentration need to Nitrogen.

Hazard Class Number and Description: 2.2 (Non-Flammable Gas)

UN Identification Number: UN 5959

Packing Group: Not Applicable

Hazard Label: Class 2.2 (Non-Flammable Gas)

Special Provisions: None

Explosive Limit and Limited Quantity Index: 0.12

ERAP Index: None

Passenger Carrying Ship Index: None

Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index: 75


Note: Shipment of compressed gas cylinders via Public Passenger Road Vehicle is a violation of Canadian law (Transport Canada Transportation of Dangerous Goods Act, 1992).

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this gas mixture are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

U.S. TSCA INVENTORY STATUS: The components of this gas mixture are on the U.S. TSCA Inventory.

California - Permissible Exposure Limits for Helium, Methane.

Florida - Substance List: Carbon Dioxide, Carbon Monoxide, Helium, Methane.

Helium, Nitrogen and Oxygen are not listed as Regulated Substances, per 40 CFR, Part 68, of the Risk Management for Chemical Releases.

Carbon Monoxide and Methane are listed under this regulation in Table 1 as Non-Flammable Substances.

The components of this gas mixture are on the U.S. TSCA Inventory.

U.S. STATE REGULATORY INFORMATION:

The components of this gas mixture are covered under the following specific State regulations:

Alabama: Designated Toxic and Hazardous Substances: Carbon Dioxide, Carbon Dioxide, Carbon Monoxide, Helium, Methane.

California: Permissible Exposure Limits for Chemical Contaminants: Carbon Dioxide, Carbon Monoxide, Helium, Methane.

Florida: Substance List: Carbon Dioxide, Oxygen, Carbon Monoxide, Helium, Methane.

Mississippi - Toxic Substance List: Carbon Dioxide, Helium, Nitrogen, Methane.

New Jersey - Right to Know Hazardous Substance List: Carbon Dioxide, Oxygen, Carbon Monoxide, Helium, Methane.

North Dakota - List of Hazardous Chemicals, Reportable Quantities: No.


Rhode Island - Hazardous Substance List: Carbon Dioxide, Oxygen, Carbon Monoxide, Helium, Nitrogen, Methane.

Texas - Hazardous Substance List: No.

West Virginia - Hazardous Substance List: Carbon Dioxide.

Wisconsin - Toxic and Hazardous Substances: Carbon Dioxide.

California SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): The Carbon Dioxide component of this gas mixture is on the California Proposition 65 lists as a chemical known to the State of California to cause birth defects or other reproductive harm. WARNING: This gas mixture contains a chemical that is known to the State of California to cause birth defects or other reproductive harm.

ADDITIONAL CANADIAN REGULATIONS:

Canadian DSL/SDS/INVENTORY STATUS: The components of this gas mixture are on the Canadian DSL Inventory.

Other Canadian Regulations: Not applicable.

Canadian Environmental Protection Act (CEPA) PRIORITIES SUBSTANCES LIST: The components of this gas mixture are not on the CEPA Priorities Substances List.

Canadian WHMIS CLASSIFICATION: This gas mixture is categorized as a Controlled Product, Hazard Classes A and D2A, as per the Controlled Product Regulations.

16. OTHER INFORMATION

INFORMATION ABOUT DOT-39 NRC (Non-Refillable Cylinder) PRODUCTS

DOT 39 cylinders ship as hazardous materials when full. Once the cylinders are relieved of pressure (empty) they are not considered hazardous material or waste. Residual gas in this type of cylinder is not an issue because toxic gas mixtures are prohibited. Calibration gas mixtures typically packaged in these cylinders are Nonflammable n.o.s., UN 5959. A small percentage of calibration gas packages in DOT 39 cylinders are flammable or oxidizing gas mixtures.

For disposal of used DOT-39 cylinders, it is acceptable to place them in a landfill if local laws permit. Their disposal is no different than that employed with other DOT containers such as spray paint cans, household aerosol, or disposable cylinders of propane (for camping, torch etc.). When feasible, we recommended recycling for scrap metal content. CALGAZ will do this for any customer that wishes to return cylinders to us prepaid. All that is required is a phone call to our reclamation program to make arrangements so we may anticipate arrival. Scraping cylinders involves some preparation before the metal dealer can accept them for reclamation as a service to valued customers who want to participate.

MIXTURES: When two or more gases or liquefied gases are mixed, their hazardous properties may combine to 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 make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

Further information about the handling of compressed gases can be found in the following pamphlets published by: Compressed Gas Association Inc. (CGA), 1725 30th Street, Suite 1004, Arlington, VA 22202-4102. Telephone: (703) 412-0900.

P-1 “Safe Handling of Compressed Gases in Containers”

AV-1 “Safe Handling and Storage of Compressed Gases”

“Handbook of Compressed Gases”

This Material Safety Data Sheet is prepared 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 knowledge, the information contained herein is reliable and accurate to the date of this issue; however, accuracy, suitability or completeness are not guaranteed and no warranties of any kind, 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.