



Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance
Safety Data Sheet 50018MSA

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 03/12/2015 Revision date: 07/20/2016 Supersedes: 05/30/2015 Version: 1.3

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance
MSN P/N : 711058, 711076, 804770, 813720, 814349, 814559, 10045035, 10048280, 10048788, 10048790, 10048890, 10050744

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
Mine Safety Appliances Company
1000 Cranberry Woods Drive
Cranberry Township
Pennsylvania U.S.A. 16066

1-800-MSA-2222
www.msanet.com/prism

1.4. Emergency telephone number

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

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Gases under pressure Compressed gas H280

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS04

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H280 - Contains gas under pressure; may explode if heated
OSHA H01 - May displace oxygen and cause rapid suffocation
CGA-HG16 - Extended exposure to gas reduces the ability to smell sulfides

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
P280 - Wear eye protection, face protection, protective gloves, protective clothing
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention
P403 - Store in a well-ventilated place
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations
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

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CGA-PG29 - Do not depend on odor to detect presence of gas

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

| Name | Product identifier | % | GHS-US classification |
|------------------|--------------------|------------------|---|
| Nitrogen | (CAS No) 7727-37-9 | 77.895 - 99.9965 | Compressed gas, H280 |
| Oxygen | (CAS No) 7782-44-7 | 0.0015 - 19.49 | Ox. Gas 1, H270 Compressed gas, H280 |
| Methane | (CAS No) 74-82-8 | 0.0005 - 2.5 | Flam. Gas 1, H220 Compressed gas, H280 |
| Carbon monoxide | (CAS No) 630-08-0 | 0.0005 - 0.09 | Flam. Gas 1, H220 Compressed gas, H280 Acute Tox. 3 (Inhalation gas), H331 Repr. 1A, H360 STOT RE 1, H372 |
| Hydrogen Sulfide | (CAS No) 7783-06-4 | 0.001 - 0.025 | Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation gas), H330 STOT SE 3, H335 Aquatic Acute 1, H400 |

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 : May displace oxygen and cause rapid suffocation.
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.

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| | |
|-------------------------------------|---|
| 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. If possible, stop flow of product. Continue water spray from protected position until container stays cool. Move containers away from the fire area if this can be done without risk. |

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. |
| Emergency procedures | : Evacuate personnel to a safe area. Close doors and windows of adjacent premises. Keep containers closed. Mark the danger area. Seal off low-lying areas. Keep upwind. |
| 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 without risk. | |
| 6.3. Methods and material for containment and cleaning up | |
| For containment | : Try to stop release if without risk. |
| Methods for cleaning up | : Dispose of contents/container in accordance with local/regional/national/international 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 only with equipment rated for cylinder pressure. Close valve after each use and when empty. |
| 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. |
| 7.2. Conditions for safe storage, including any incompatibilities | |
| Technical measures | : Comply with applicable regulations. |
| Storage conditions | : Do not expose to temperatures exceeding 52 °C/ 125 °F. Keep container closed when not in use. Protect cylinders from physical damage; do not drag, roll, slide or drop. Store in well ventilated area. |
| Incompatible products | : None known. |
| Incompatible materials | : None known. |
| Storage area | : Store away from heat. Store in a well-ventilated place. |

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| | | |
|---|--|-----------------------|
| SECTION 8: Exposure controls/personal protection | | |
| 8.1. Control parameters | | |
| Nitrogen (7727-37-9) | | |
| Not applicable | | |
| Methane (74-82-8) | | |
| Not applicable | | |
| Hydrogen Sulfide (7783-06-4) | | |
| ACGIH | ACGIH TWA (ppm) | 1 ppm |
| ACGIH | ACGIH STEL (ppm) | 5 ppm |
| OSHA | OSHA PEL (Ceiling) (ppm) | 20 ppm |
| IDLH | US IDLH (ppm) | 100 ppm |
| NIOSH | NIOSH REL (ceiling) (mg/m ³) | 15 mg/m ³ |
| NIOSH | NIOSH REL (ceiling) (ppm) | 10 ppm |
| Oxygen (7782-44-7) | | |
| Not applicable | | |
| Carbon monoxide (630-08-0) | | |
| ACGIH | ACGIH TWA (ppm) | 25 ppm |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 55 mg/m ³ |
| OSHA | OSHA PEL (TWA) (ppm) | 50 ppm |
| IDLH | US IDLH (ppm) | 1200 ppm |
| NIOSH | NIOSH REL (TWA) (mg/m ³) | 40 mg/m ³ |
| NIOSH | NIOSH REL (TWA) (ppm) | 35 ppm |
| NIOSH | NIOSH REL (ceiling) (mg/m ³) | 229 mg/m ³ |
| NIOSH | NIOSH REL (ceiling) (ppm) | 200 ppm |

| | |
|----------------------------------|---|
| 8.2. Exposure controls | |
| Appropriate engineering controls | : Ensure exposure is below occupational exposure limits (where available). Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Oxygen detectors should be used when asphyxiating gases may be released. Consider work permit system e.g. for maintenance activities. |
| Hand protection | : Wear working gloves when handling gas containers. 29 CFR 1910.138: Hand protection. |
| Eye protection | : Wear safety glasses with side shields. 29 CFR 1910.133: Eye and Face Protection. |
| 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. |
| Other information | : Wear safety shoes while handling containers. 29 CFR 1910.136: Foot Protection. |

SECTION 9: Physical and chemical properties

| | |
|---|-------------------------|
| 9.1. Information on basic physical and chemical properties | |
| Physical state | : Gas |
| Appearance | : Clear, colorless gas. |
| Color | : Colorless |
| Odor | : Rotten eggs |
| Odor threshold | : No data available |
| pH | : No data available |

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| | |
|---|--|
| 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 |
| Flammability (solid, gas) | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : Not applicable (non-flammable gas). |
| Oxidizing properties | : None. |
| Vapor pressure | : No data available |
| Relative density | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative gas density | : Similar to air |
| Solubility | : Water: No data available |
| Log Pow | : Not applicable for gas-mixtures. Not applicable for gas-mixtures. |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

None known.

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

Acute toxicity : Not classified

| | |
|-------------------------------------|--|
| Nitrogen (7727-37-9) | |
| LC50 inhalation rat (ppm) | 820000 ppm/4h |
| ATE US (gases) | 820000.000 ppmV/4h |
| Methane (74-82-8) | |
| LC50 inhalation rat (ppm) | 820000 ppm/4h |
| ATE US (gases) | 820000.000 ppmV/4h |
| Hydrogen Sulfide (7783-06-4) | |
| LC50 inhalation rat (mg/l) | 700 mg/m ³ (Exposure time: 4 h) |
| LC50 inhalation rat (ppm) | 356 ppm/4h |

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EN (English US)

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| | |
|--|--------------------|
| Hydrogen Sulfide (7783-06-4) | |
| ATE US (gases) | 356.000 ppmV/4h |
| ATE US (vapors) | 0.990 mg/l/4h |
| ATE US (dust, mist) | 0.990 mg/l/4h |
| Oxygen (7782-44-7) | |
| LC50 inhalation rat (ppm) | 800000 ppm/4h |
| ATE US (gases) | 800000.000 ppmV/4h |
| Carbon monoxide (50-08-0) | |
| LC50 inhalation rat (ppm) | 1880 ppm/4h |
| ATE US (gases) | 1880.000 ppmV/4h |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| 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 | : May displace oxygen and cause rapid suffocation. |
| 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. |

SECTION 12: Ecological information

12.1. Toxicity

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

| | |
|-------------------------------------|---|
| Hydrogen Sulfide (7783-06-4) | |
| LC50 fish 1 | 0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus (flow-through)) |
| LC50 fish 2 | 0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas (flow-through)) |

12.2. Persistence and degradability

| | |
|--|---|
| Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance | |
| Persistence and degradability | No data available. |
| Nitrogen (7727-37-9) | |
| 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 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. |
| Carbon monoxide (50-08-0) | |
| Persistence and degradability | Will not undergo hydrolysis. Not readily biodegradable. Not applicable for inorganic gases. |

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12.3. Bioaccumulative potential

| Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance | |
|--|---|
| Log Pow | Not applicable for gas-mixtures. |
| Log Kow | Not applicable for gas-mixtures. |
| 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. |
| Methane (74-82-8) | |
| Bioaccumulative potential | Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9. |
| 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 ecological damage caused by this product. |
| Carbon monoxide (630-08-0) | |
| Log Pow | 1.78 |
| Bioaccumulative potential | Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9. |

12.4. Mobility in soil

| Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance | |
|--|---|
| Mobility in soil | No data available |
| Nitrogen (7727-37-9) | |
| 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. |
| 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. |
| Carbon monoxide (630-08-0) | |
| 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 : No known effects from this product

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. |

SECTION 14: Transport information

Department of Transportation (DOT)

| | |
|--------------------------------|---|
| In accordance with DOT | |
| Transport document description | : UN1956 Compressed gas, n.o.s. (Nitrogen, Oxygen), 2.2 |
| UN-No. (DOT) | : UN1956 |

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|----------------------------|---|
| Proper Shipping Name (DOT) | : Compressed gas, n.o.s. |
| Class (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 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 |
| 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. |

Transportation of Dangerous Goods

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

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TDG Special Provisions

16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a)UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOID, SOLID, N.O.S.; (b)UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.; (c)UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOID, LIQUID, N.O.S.; (d)UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.; or (e)UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act". (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a)UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b)UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS. SOR/2014-306 148 - (1) Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles if (a) the working pressure in each receptacle is less than 5 000 kPa; (b) the capacity of each receptacle is less than 12 L; (c) each receptacle has a minimum burst pressure of (i) at least 3 times the working pressure, when the receptacle is fitted with a relief device, or (ii) at least 4 times the working pressure, when the receptacle is not fitted with a relief device; (d) each receptacle is manufactured from material that will not fragment upon rupture; (e) each detector is manufactured under a quality assurance program; ISO 9001:2008 is an example of a quality assurance program. (f) the detectors are transported in strong outer means of containment; and (g) a detector in its outer means of containment is capable of withstanding a 1.2 m drop test without breakage of the detector or rupture of the outer means of containment. (2) Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles and that are included in equipment, if (a) the conditions set out in paragraphs (1)(a) to (e) are met; and (b) the equipment is contained in a strong outer means of containment or the equipment affords the detectors with protection that is equivalent to that provided by a strong outer means of containment. (3) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles, including detectors in radiation detection systems, if the detectors meet the requirements of subsection (1) or (2), as applicable, and the capacity of the receptacles that contain the detectors is less than 50 mL. SOR/2014-306

Explosive Limit and Limited Quantity Index : 0.125 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 75 L

Transport by sea

UN-No. (IMDG) : 1956
Proper Shipping Name (IMDG) : COMPRESSED GAS, N.O.S.
Class (IMDG) : 2 - Gases

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

| |
|---|
| Nitrogen (7727-37-9) |
| 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 |

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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 | |
| CERCLA RQ | 100 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 lb |
| SARA Section 313 - Emission Reporting | 1.0 % |

Oxygen (7782-44-7)

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

Carbon monoxide (508-08-0)

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

15.2: International regulations

CANADA

Nitrogen (7727-37-9)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification : Class A - Compressed Gas

Methane (74-82-8)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification : Class A - Compressed Gas
Class B Division 1 - Flammable Gas

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

Carbon monoxide (508-08-0)

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 A - Very toxic material causing other toxic effects

EU-Regulations

Nitrogen (7727-37-9)

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

Methane (74-82-8)

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

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)

Carbon monoxide (508-08-0)

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

National regulations

Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance

Safety Data Sheet

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

| |
|---|
| Nitrogen (7727-37-9) Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) |
| Methane (74-82-8) 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 INSQ (Mexican National Inventory of Chemical Substances) Listed on ICIR (Turkish Inventory and Control of Chemicals) |
| 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) Listed on INSQ (Mexican National Inventory of Chemical Substances) |
| Oxygen (7782-44-7) Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) |
| Carbon monoxide (630-08-0) 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) Listed on INSQ (Mexican National Inventory of Chemical Substances) |

15.3. US State regulations

| | | | | |
|---|---|---|---|-----------------------------------|
| 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 | |
| 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 | | | | |
| 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 | | | | |

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Oxygen (0.0015-19.49%), Methane (0.0005-2.5%), Carbon Monoxide (0.001-0.09%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and 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 |
| 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 |

SECTION 16: Other information

| | |
|-------------------|---|
| Revision date | : 07/20/2016 |
| 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. |

Full text of H-phrases:

| | |
|------|--|
| H220 | Extremely flammable gas |
| H270 | May cause or intensify fire; oxidizer |
| H280 | Contains gas under pressure; may explode if heated |
| H330 | Fatal if inhaled |
| H331 | Toxic if inhaled |
| H335 | May cause respiratory irritation |
| H360 | May damage fertility or the unborn child |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H400 | Very toxic to aquatic life |

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 Calgas'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.

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EN (English US)

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