

Oxygen (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), 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: 07/09/2014 Revision date: 04/01/2016 Version: 1.2

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

1.1. Product identifier

Product form : Mixture
 Product name : Oxygen (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance
 MSA P/N : 711058, 711076, 804770, 813720, 814349, 814559, 10045035, 10048280, 10048788, 10048790, 10048890, 10050744, 10125695, 10150595, 10150620

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

Manufacturer:
 Calgaz, division of Air Liquide
 821 Chesapeake Drive
 Cambridge, MD 21613

U.S. Supplier
 Mine Safety Appliances Company
 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: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Compressed gas H280
 Repr. 1A H360
 STOT RE 1 H372

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H280 - Contains gas under pressure; may explode if heated
 H360 - (Inhalation)
 H372 - Causes damage to organs (CNS) through prolonged or repeated exposure (Inhalation)
 CGA-HG10 - Asphyxiating even with adequate oxygen

Precautionary statements (GHS-US) :

P271 - Use only outdoors or in a well-ventilated area
 P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P260 - Do not breathe gas
 P264 - Wash thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear eye protection, protective clothing
 P308+P313 - IF exposed or concerned: Get medical advice/attention
 P314 - Get medical advice and attention if you feel unwell

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P405 - Store locked up
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
P403 - Store in a well-ventilated place

2.3. Other hazards

Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|------------------|--------------------|------------------|---|
| Nitrogen | (CAS No) 7727-37-9 | 72.975 - 99.9965 | Compressed gas, H280 |
| Oxygen | (CAS No) 7782-44-7 | 0.0015 - 23.5 | 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 - 1 | 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 |

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Adverse effects not expected from this product. If you feel unwell, seek medical advice.
First-aid measures after skin contact : Adverse effects not expected from this product.
First-aid measures after eye contact : Adverse effects not expected from this product.
First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

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

Symptoms/injuries after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
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. Obtain medical attention if breathing difficulty persists.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Non-flammable gas. 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

- Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Reactivity : No reactivity hazard other than the effects described in sub-sections below.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Try to stop release. Ensure adequate ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.1.1. For non-emergency personnel

- Protective equipment : Wear protective equipment consistent with the site emergency plan.
Emergency procedures : Escape the danger area by the closest safe route. 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

Stop leak if safe to do so.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so.
Methods for cleaning up : Dispose of this material and its container in accordance with local regulations.

6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Pressurized container: Do not pierce or burn, even after use. Use equipment rated for cylinder pressure.
Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.
Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : None known.
Storage conditions : Do not expose to temperatures exceeding 52°C (125°F). Keep container closed when not in use. Protect cylinder from physical damage. Store in well ventilated area. Store locked up.
Incompatible products : None known.
Incompatible materials : Flammable materials.

7.3. Specific end use(s)

None.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Nitrogen (7727-37-9)

Methane (74-82-8)

| | | |
|-----------|-----------------|----------|
| USA ACGIH | ACGIH TWA (ppm) | 1000 ppm |
|-----------|-----------------|----------|

Hydrogen sulfide (7783-06-4)

| | | |
|-----------|--------------------------|--------|
| USA ACGIH | ACGIH TWA (ppm) | 1 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 5 ppm |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 20 ppm |

Carbon monoxide (630-08-0)

| | | |
|-----------|-------------------------------------|----------------------|
| USA ACGIH | ACGIH TWA (ppm) | 25 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 55 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 50 ppm |

8.2. Exposure controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : 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. 29CFR 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 | : See sections 5 & 6. |
| Thermal hazard protection | : None necessary. |
| Environmental exposure controls | : Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment. None necessary. |
| 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. |
| Molecular mass | : Not applicable for gas-mixtures. |
| Colour | : No data available |
| Odour | : No data available |
| Odour threshold | : Odour threshold is subjective and inadequate to warn for overexposure. |
| pH | : Not applicable for gas-mixtures. |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : Not applicable for gas-mixtures. |
| Melting point | : Not applicable for gas-mixtures. |
| Freezing point | : No data available |
| Boiling point | : Not applicable for gas-mixtures. |
| Flash point | : Not applicable for gas-mixtures. |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : Not applicable. |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Relative gas density | : Heavier than air. |
| Solubility | : No data available |
| Log Pow | : Not applicable for gas-mixtures. |

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| | |
|----------------------|---|
| Log Kow | : Not applicable for gas-mixtures. |
| Viscosity, kinematic | : Not applicable. |
| Viscosity, dynamic | : Not applicable. |
| Explosive properties | : Not applicable. |
| Oxidising properties | : Not combustible but enhances combustion of other substances. Supports combustion. |
| Explosive limits | : Not applicable for gas-mixtures. |

9.2. Other information

| | |
|------------------------|--|
| Gas group | : Compressed gas |
| Additional information | : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level. |

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

Can form explosive mixtures with flammable materials. None.

10.4. Conditions to avoid

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

10.5. Incompatible materials

None. Flammable materials.

10.6. Hazardous decomposition products

None. 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) | 410000 ppm/4h |
|---------------------------|---------------|

Methane (74-82-8)

| | |
|---------------------------|--------------------|
| LC50 inhalation rat (ppm) | 410000 ppm/4h |
| ATE CLP (gases) | 410000.000 ppmv/4h |

Hydrogen sulfide (7783-06-4)

| | |
|----------------------------|--------------------------------|
| LC50 inhalation rat (mg/l) | 0.99 mg/l (Exposure time: 1 h) |
| LC50 inhalation rat (ppm) | 356 ppm/4h |
| ATE CLP (gases) | 356.000 ppmv/4h |
| ATE CLP (vapours) | 0.990 mg/l/4h |
| ATE CLP (dust,mist) | 0.990 mg/l/4h |

Oxygen (7782-44-7)

| | |
|---------------------------|---------------|
| LC50 inhalation rat (ppm) | 400000 ppm/4h |
|---------------------------|---------------|

Carbon monoxide (630-08-0)

| | |
|---------------------------|------------------|
| LC50 inhalation rat (ppm) | 1880 ppm/4h |
| ATE CLP (gases) | 1880.000 ppmv/4h |

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Not classified pH: Not applicable for gas-mixtures. |
| Serious eye damage/irritation | : Not classified pH: Not applicable for gas-mixtures. |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |

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| | |
|--|---|
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : (Inhalation). |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Causes damage to organs (CNS) through prolonged or repeated exposure (Inhalation). No known effects from this product. |
| Aspiration hazard | : Not classified Not applicable for gases and gas-mixtures. |
| Symptoms/injuries after inhalation | : Not expected to present a significant inhalation hazard under anticipated conditions of normal use. |
| 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 fishes 1 | 0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) |
| EC50 Daphnia 1 | 0.022 mg/l (Exposure time: 96 h - Species: Gammarus pseudolimnaeus) |
| LC50 fish 2 | 0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |

12.2. Persistence and degradability

Oxygen (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), 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. No data available.

Hydrogen sulfide (7783-06-4)

Persistence and degradability : Not applicable for inorganic gases.

Oxygen (7782-44-7)

Persistence and degradability : No ecological damage caused by this product.

Carbon monoxide (630-08-0)

Persistence and degradability : Will not undergo hydrolysis. Not readily biodegradable. Not applicable for inorganic gases.

12.3. Bioaccumulative potential

Oxygen (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), 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)

| | |
|---------------------------|---|
| Log Pow | 1.09 |
| Log Kow | Not applicable for gas-mixtures. |
| Bioaccumulative potential | Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9. |

Oxygen (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), Hydrogen Sulfide (0.001-0.025%) in Nitrogen Balance

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| 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 (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), 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) | |
|-------------------|---|
| Mobility in soil | No data available. |
| 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

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-------------------------|--|
| Waste treatment methods | : Contact supplier if guidance is required. May be vented to atmosphere. Do not discharge into any place where its accumulation could be dangerous. 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. |
| Additional information | : None. |

SECTION 14: Transport information

| | |
|---|---|
| In accordance with DOT | |
| Transport document description | : UN1956 Compressed gas, n.o.s. (Oxygen, Nitrogen), 2.2 |
| UN-No.(DOT) | : 1956 |
| DOT NA no. | : UN1956 |
| DOT Proper Shipping Name | : Compressed gas, n.o.s. (Oxygen, Nitrogen) |
| Department of Transportation (DOT) Hazard Classes | : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115 |
| Hazard labels (DOT) | : 2.2 - Non-flammable gas |



| | |
|---|---|
| DOT Symbols | : G - Identifies PSN requiring a technical name |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 306;307 |

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| | |
|--|---|
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 302;305 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 314;315 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 75 kg |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 150 kg |
| DOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |

Additional information

| | |
|-------------------------------|---|
| Other information | : No supplementary information available. |
| Special transport precautions | : Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure cylinder valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted. |

ADR

Transport document description :

Transport by sea

| | |
|-----------------------------|--|
| UN-No. (IMDG) | : 1956 |
| Proper Shipping Name (IMDG) | : COMPRESSED GAS, N.O.S. |
| Class (IMDG) | : 2.2 - Non-flammable, non-toxic gases |

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

Hydrogen sulfide (7783-06-4)

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

Listed on the United States SARA Section 302

Listed on United States SARA Section 313

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

Oxygen (7782-44-7)

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

Carbon monoxide (630-08-0)

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

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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 (630-08-0)

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 (630-08-0)

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

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

15.2.2. National 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)

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)

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Hydrogen sulfide (7783-06-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
 Listed on the Korean ECL (Existing Chemicals List)
 Listed on NZIoC (New Zealand Inventory of Chemicals)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
 Listed on the Canadian IDL (Ingredient Disclosure List)

Oxygen (7782-44-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
 Listed on the Korean ECL (Existing Chemicals List)
 Listed on NZIoC (New Zealand Inventory of Chemicals)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

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)

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 | No significance risk level (NSRL) |
|---|---|---|---|-----------------------------------|
| | Yes | | | |

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

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

Oxygen (0.0015-23.5), Methane (0.0005-2.5%), Carbon Monoxide (0.001-1.0%), 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

SECTION 16: Other information

- Indication of changes : Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.
- Training advice : Receptacle under pressure.
- Other information : This Safety Data Sheet has been established in accordance with the applicable European Union legislation. Classification in accordance with calculation methods of regulation (EC) 1272/2008 CLP / (EC) 1999/45 DPD.

Full text of H-phrases: see section 16:

| | |
|-------------------------------|--|
| Acute Tox. 2 (Inhalation:gas) | Acute toxicity (inhalation:gas) Category 2 |
| Acute Tox. 3 (Inhalation:gas) | Acute toxicity (inhalation:gas) Category 3 |
| Compressed gas | Gases under pressure : Compressed gas |
| Flam. Gas 1 | Flammable gases, Category 1 |
| Liquefied gas | Gases under pressure : Liquefied gas |
| Ox. Gas 1 | Oxidising Gases, Category 1 |
| Repr. 1A | Reproductive toxicity, Category 1A |
| STOT RE 1 | Specific target organ toxicity — Repeated exposure, Category 1 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| 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 (CNS) through prolonged or repeated exposure |

SDS US (GHS HazCom 2012)

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