



# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet 50010

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

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### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixtures  
Product name : Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Test gas/Calibration gas.

#### 1.3. Supplier

Calgaz, division of Airgas USA LLC  
821 Chesapeake Drive  
Cambridge, 21613 - USA  
T 1-410-228-6400 - F 1-410-228-4251  
[info@Calgaz.com](mailto:info@Calgaz.com) - [www.Calgaz.com](http://www.Calgaz.com)

#### 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 H280 Contains gas under pressure; may explode if heated  
Compressed gas

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### 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  
Precautionary statements (GHS-US) : P410+P403 - Protect from sunlight. Store in a well-ventilated place.

#### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

Name	Product identifier	%	GHS-US classification
Nitrogen	(CAS-No.) 7727-37-9	79 - 99.9	Press. Gas (Comp.), H280
Oxygen	(CAS-No.) 7782-44-7	0.005 - 19.49	Ox. Gas 1, H270 Press. Gas (Comp.), H280
n-Pentane	(CAS-No.) 109-66-0	0.1 - 0.75	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Carbon monoxide	(CAS-No.) 630-08-0	0.001 - 0.09	Flam. Gas 1, H220 Press. Gas (Comp.), H280 Acute Tox. 3 (Inhalation:gas), H331 Repr. 1A, H360 STOT RE 1, H372

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Adverse effects not expected from this product.  
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 (acute and delayed)

- Symptoms/effects after inhalation : Adverse effects not expected from this product.  
Symptoms/effects after skin contact : Adverse effects not expected from this product.  
Symptoms/effects after eye contact : Adverse effects not expected from this product.  
Symptoms/effects after ingestion : Ingestion is not considered a potential route of exposure.  
Symptoms/effects upon intravenous administration : Not known.  
Chronic symptoms : Adverse effects not expected from this product.  
Most important symptoms and effects, both acute and delayed : No effect on living tissue. Refer to section 11.

#### 4.3. Immediate medical attention and special treatment, if necessary

If you feel unwell, seek medical advice. If breathing is difficult, give oxygen.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.  
Unsuitable extinguishing media : Do not use water jet to extinguish.

#### 5.2. Specific hazards arising from the chemical

- 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. No reactivity hazard other than the effects described in sub-sections below.  
Hazardous combustion products : None that are more hazardous than the product itself. Incomplete combustion may form carbon monoxide.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Exposure to fire may cause containers to rupture/explode. 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.  
Special protective equipment for fire fighters : Standard protective clothing and equipment (e.g. Self Contained Breathing Apparatus) for fire fighters. Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters. Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

- Specific methods : Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems. If possible, stop flow of product. Use water spray or fog to knock down fire fumes if possible. 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 : Try to stop release. 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. None.

#### 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.  
Methods and material for containment and cleaning up : None.

#### 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 : Refer to supplier's container handling instructions. Do not allow backfeed into the container. Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Keep container valve outlets clean and free from contaminants particularly oil and water. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one cylinder/container to another. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. Containers should be stored in the vertical position and properly secured to prevent them from falling over.  
Safe use of the product : The product 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 smoke while handling product. 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.

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and 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	: Flammable materials.
Conditions for safe storage, including any incompatibilities	: Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Container valve guards or caps should be in place. Containers should be stored in the vertical position and properly secured to prevent them from falling over. Stored containers should be periodically checked for general condition and leakage. Keep container below 50°C in a well ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.
Storage area	: Store in a well-ventilated place. Store away from heat.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Oxygen (7782-44-7)		
Not applicable		
n-Pentane (109-66-0)		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2950 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
IDLH	US IDLH (ppm)	1500 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	120 ppm
NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
NIOSH	NIOSH REL (ceiling) (ppm)	610 ppm
Nitrogen (7727-37-9)		
ACGIH	Remark (ACGIH)	Simple Asphyxiant
Carbon monoxide (630-08-0)		
ACGIH	ACGIH TWA (ppm)	25 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	55 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	50 ppm
IDLH	US IDLH (ppm)	1200 ppm
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	40 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	35 ppm
NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	229 mg/m <sup>3</sup>
NIOSH	NIOSH REL (ceiling) (ppm)	200 ppm

#### 8.2. Appropriate engineering 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. Consider the use of a work permit system e.g. for maintenance activities.
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.

#### 8.3. Individual protection measures/Personal protective equipment

##### Personal protective equipment:

Gloves. Safety glasses. Protective clothing. Safety shoes.

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

### Hand protection:

Wear working gloves when handling gas containers. Standard EN 388 - Protective gloves against mechanical risk.

### Eye protection:

Wear safety glasses with side shields. Standard EN 166 - Personal eye-protection - specifications

### 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.

### Other information:

Wear safety shoes while handling containers. Standard EN ISO 20345 - Personal protective equipment - Safety footwear.

## 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	: gasoline-like
Odor threshold	: Odor threshold is subjective and inadequate to warn for overexposure
pH	: 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.
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable for gas-mixtures.
Flammability (solid, gas)	: See Section 2.1 and 2.2
Vapor pressure	: Not applicable.
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Relative gas density	: Lighter or 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, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Explosion limits	: Not applicable for gas-mixtures.
Explosive properties	: Not applicable (non-flammable gas).
Oxidizing properties	: Supports combustion.

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## Safety Data Sheet

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

### 9.2. Other information

Additional information : None

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

None known. 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

Flammable materials. None.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. None.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Oxygen (7782-44-7)</b>	
LC50 inhalation rat (ppm)	800000 ppm/4h
ATE US (gases)	800000.000 ppmV/4h
<b>n-Pentane (109-66-0)</b>	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	3000 mg/kg
LC50 inhalation rat (mg/l)	364 g/m <sup>3</sup> (Exposure time: 4 h)
LC50 inhalation rat (ppm)	123317.17 ppm/4h
ATE US (dermal)	3000.000 mg/kg body weight
ATE US (gases)	123317.170 ppmV/4h
ATE US (vapors)	364.000 mg/l/4h
ATE US (dust, mist)	364.000 mg/l/4h
<b>Nitrogen (7727-37-9)</b>	
LC50 inhalation rat (ppm)	820000 ppm/4h
ATE US (gases)	820000.000 ppmV/4h
<b>Carbon monoxide (630-08-0)</b>	
LC50 inhalation rat (ppm)	1880 ppm/4h
ATE US (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 sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: Adverse effects not expected from this product.
Symptoms/effects after skin contact	: Adverse effects not expected from this product.
Symptoms/effects after eye contact	: Adverse effects not expected from this product.
Symptoms/effects after ingestion	: Ingestion is not considered a potential route of exposure.
Symptoms/effects 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.

n-Pentane (109-66-0)	
LC50 fish 1	9.87 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	9.74 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	11.59 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

Carbon monoxide (630-08-0)	
LC50-96 h - fish [mg/l]	Study scientifically unjustified.
EC50 48h - Daphnia magna [mg/l]	Study scientifically unjustified.
EC50 72h Algae [mg/l]	Study scientifically unjustified.

#### 12.2. Persistence and degradability

Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance	
Persistence and degradability	No data available.
Oxygen (7782-44-7)	
Persistence and degradability	No ecological damage caused by this product.
Nitrogen (7727-37-9)	
Persistence and degradability	No ecological damage caused by this product.
Carbon monoxide (630-08-0)	
Persistence and degradability	Will not undergo hydrolysis. Not readily biodegradable. Not applicable for inorganic gases.

#### 12.3. Bioaccumulative potential

Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance	
Log Pow	Not applicable for gas-mixtures.
Log Kow	Not applicable for gas-mixtures.
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.
n-Pentane (109-66-0)	
Log Pow	3.39
Nitrogen (7727-37-9)	
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.

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

### 12.4. Mobility in soil

Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance	
Mobility in soil	No data available
Oxygen (7782-44-7)	
Ecology - soil	No ecological damage caused by this product.
Nitrogen (7727-37-9)	
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. Disposal 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. May be vented to atmosphere. Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at <http://www.eiga.org> for more guidance on suitable disposal methods.

Product/Packaging disposal recommendations : Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at [www.cganet.com](http://www.cganet.com) for more guidance on suitable disposal methods.

Additional information : None.

List of hazardous wastes : 16 05 05 : Gases in pressure containers other than those mentioned in 16 05 04.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1956 Compressed gas, n.o.s., 2.2

UN-No.(DOT) : UN1956

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

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.

Emergency Response Guide (ERG) Number : 126

Other information : No supplementary information available.



# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

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

Not applicable

### Transport by sea

Transport document description (IMDG) : UN 1956 COMPRESSED GAS, N.O.S., 2.2  
UN-No. (IMDG) : 1956  
Proper Shipping Name (IMDG) : COMPRESSED GAS, N.O.S.  
Class (IMDG) : 2.2 - Non-flammable, non-toxic gases  
Limited quantities (IMDG) : 120 ml

### Air transport

Transport document description (IATA) : UN 1956 COMPRESSED GAS, N.O.S., 2.2  
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

#### Oxygen (7782-44-7)

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

#### n-Pentane (109-66-0)

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

#### Nitrogen (7727-37-9)

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

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

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

### 15.2. International regulations

#### CANADA

#### Oxygen (7782-44-7)

Listed on the Canadian DSL (Domestic Substances List)

#### n-Pentane (109-66-0)

Listed on the Canadian DSL (Domestic Substances List)

#### Nitrogen (7727-37-9)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

#### Oxygen (7782-44-7)

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

#### n-Pentane (109-66-0)

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

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) 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 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)

### National regulations

#### 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)  
 Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### n-Pentane (109-66-0)

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 Japanese ISHL (Industrial Safety and Health Law)  
 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)  
 Listed on CICR (Turkish Inventory and Control of Chemicals)  
 Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### 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)  
 Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### 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 Japanese ISHL (Industrial Safety and Health Law)  
 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)  
 Listed on the TCSI (Taiwan Chemical Substance Inventory)

### 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 significant risk level (NSRL)
No	Yes	No	No	

#### 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

# Oxygen (0.005-19.49%), n-Pentane (0.1 - 0.75%) , Carbon Monoxide (0.001-0.09%) in Nitrogen Balance

## Safety Data Sheet

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

### n-Pentane (109-66-0)

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

### 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

### 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

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:

H220	Extremely flammable gas
H225	Highly flammable liquid and vapour
H270	May cause or intensify fire; oxidizer
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

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.*