

Safety Data Sheet 50214

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 08/15/2014 Revision date: 08/15/2014 Version: 1.0

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1. **Product identifier** Product form : Mixture Product name Oxygen (0 - 19%) Pentane (0 - 0.75%) Carbon Monoxide (0.0005-0.09%) Hydrogen Sulfide · (0.001-0.025%) in balance Nitrogen 1810-9155, 1810-9157, 1810-9159, 1810-9181, 1810-9191, 1810-9194, 1810-2187, 1810-2343, Replaces ISC MSDS No. 1810-3366, 1810-3937, 1810-5403, 1810-7599, 1810-9077, 1810-9103 1.2. Relevant identified uses of the substance or mixture and uses advised against Use of the substance/mixture : Test gas/Calibration gas. Details of the supplier of the safety data sheet 1.3. U.S. Supplier: Industrial Scientific Corporation 1 Life Way Pittsburgh, PA 15205-7500 Phone (412) 788-4353 **TOLL-FREE 800-DETECTS** Fax (412) 788-8353 MANUFACTURER: CALGAZ 821 Chesapeake Drive Cambridge, MD 21613 1.4. **Emergency telephone number** : CHEMTREC: 1-800-424-9300 Emergency number Internationally: 1-703-527-3887 SECTION 2: Hazards identification 2.1. **Classification of the substance or mixture** Classification (GHS-US) Compressed gas H280 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 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 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P313 - Get medical advice/attention CGA-PG05 - Use a back flow preventive device in the piping CGA-PG21 - Open valve slowly 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-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F) P403 - Store in a well-ventilated place

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### 2.3. Other hazards

### No additional information available

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

No data available

## **SECTION 3: Composition/information on ingredients**

## 3.1. Substance

### Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Nitrogen	(CAS No) 7727-37-9	80.1575 - 99.9985	Compressed gas, H280
Oxygen	(CAS No) 7782-44-7	0 - 19	Ox. Gas 1, H270 Compressed gas, H280
Pentane	(CAS No) 109-66-0	0 - 0.75	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304
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 - 0.0025	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	: Remove 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 ef	fects, both acute and delayed	
Symptoms/injuries	: Adverse effects not expected from this product.	
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.

<b>SECTION 5: Firefighting measure</b>	es		
5.1. Extinguishing media			
Suitable extinguishing media	: Use extinguishing media appr	opriate for surrounding fire.	
Unsuitable extinguishing media	: Do not use water jet.		
5.2. Special hazards arising from th	e substance or mixture		
Fire hazard	: The product is not flammable.		
Explosion hazard	: Product is not explosive. Heat and increasing risk of burns at	may build pressure, rupturing closed container nd injuries.	s, spreading fire
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 of fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	<ul> <li>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.</li> </ul>
SECTION 6: Accidental release	measures
6.1. Personal precautions, protec	tive equipment and emergency procedures
General measures	: Ensure adequate ventilation.
6.1.1. For non-emergency personne	el
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	
Try to stop release if safe to do so.	
6.3. Methods and material for con	tainment and cleaning up
For containment	: Try to stop release 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.	
<b>SECTION 7: Handling and stor</b>	age
7.1. Precautions for safe handling	J
Additional hazards when processed	: Pressurized container: Do not pierce or burn, even after use. Use equipment rated for cylinder

Incompatible materials	

Precautions for safe handling

Hygiene measures

**Technical measures** 

Storage conditions

Incompatible products

7.2.

#### 7.3. Specific end use(s)

Test gas/Calibration gas.

### **SECTION 8: Exposure controls/personal protection**

Conditions for safe storage, including any incompatibilities

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8.1.
         Control parameters
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Pentane (109-66-0)		
USA ACGIH	ACGIH TWA (ppm)	600 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2950 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

: Do not eat, drink or smoke when using this product.

Protect cylinder from physical damage. Store in well ventilated area.

Carbon monoxide (630-08-0)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	55 mg/m³

pressure.

None known.

: None known.

in a well-ventilated area.

: Comply with applicable regulations.

: Do not handle until all safety precautions have been read and understood. Use only outdoors or

: Do not expose to temperatures exceeding 52°C (125°F). Keep container closed when not in use.

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Carbon monoxide (630-08-0)			
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm	
Hydrogen sulfide (7783-06-4)		·	
	ACGIH TWA (ppm)	1 ppm	
	ACGIH STEL (ppm)	5 ppm	
	,		
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm	
Nitrogen (7727-37-9)			
3.2. Exposure controls			
Appropriate engineering controls	regularly checked for lea	al and local exhaust ventilation. Systems under pres kages. Ensure exposure is below occupational expo stem e.g. for maintenance activities.	
Hand protection		en handling gas containers. 29CFR 1910.138: Hand	Protection.
Eye protection	: Wear safety glasses with	n side shields. 29 CFR 1910.133: Eye and Face Prot	ection.
Skin and body protection	: Wear suitable protective	clothing, e.g lab coats, coveralls or flame resistant	t clothing.
Respiratory protection	: None necessary during	normal and routine operations. See sections 5 & 6.	
hermal hazard protection	: None necessary during	normal and routine operations.	
Environmental exposure controls	: Refer to local regulation specific methods for was	s for restriction of emissions to the atmosphere. See ste gas treatment.	section 13 for
Other information	: Wear safety shoes while	handling containers. 29 CFR 1910.136: Foot Protect	tion.
SECTION 9: Physical and	chemical properties		
0.1. Information on basic	physical and chemical properties		
hysical state	: Gas		
lolecular mass	: Not applicable for gas-m	ixtures.	
color	: Colorless		
dor	: Rotten eggs		
Odor threshold	: No data available		
н	: Not applicable for gas-m	ixtures.	
Relative evaporation rate (butyl a	cetate=1) : No data available		
Relative evaporation rate (ether=	I) : Not applicable for gas-m	ixtures.	
Aelting point	: No data available		
reezing point	: No data available		
Boiling point	: No data available		
lash point	: No data available		
uto-ignition temperature	: No data available		
Decomposition temperature	: No data available		
lammability (solid, gas)	: Not applicable - not flam	mable	
apor pressure	: Not applicable.		
Relative vapor density at 20 °C	: No data available		
Relative density	: No data available		
Relative gas density	: Heavier than air.		
olubility		r of component(s) of the mixture : • : Insoluble • : 20 mg/l • : 3980 mg/l	
og Pow	: Not applicable for gas-m	ixtures.	
og Kow	: Not applicable for gas-m	ixtures.	
iscosity, kinematic	: Not applicable.		
íscosity, dynamic	: Not applicable.		
Explosive properties	: Not applicable. Not appl	cable - not flammable.	
Dxidizing properties	: None.		
xplosive limits	: Not applicable - not flam	mable	
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#### 9.2. Other information

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		
None k	nown.		
10.2.	Chemical stability		
Stable (	under normal conditions.		
10.3.	Possibility of hazardous reactions		
None k	nown.		
10.4.	Conditions to avoid		
None u	None under recommended storage and handling conditions (see section 7).		
10.5.	Incompatible materials		
None k	nown.		
10.6.	Hazardous decomposition products		
Under r	normal conditions of storage and use hazardous decomposition products should not be produced.		
SECT	SECTION 11: Toxicological information		
11.1.	Information on toxicological effects		
A			

Acute toxicity

: Not classified

LC50 inhalation rat (ppm)	400000 ppm/4h	
Pentane (109-66-0)		
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)	123390 ppm/4h	
ATE US (dermal)	3000.0000000 mg/kg body weight	
ATE US (gases)	123390.0000000 ppmV/4h	
ATE US (vapors)	364.0000000 mg/l/4h	
ATE US (dust, mist)	364.0000000 mg/l/4h	
Carbon monoxide (630-08-0)		
LC50 inhalation rat (ppm)	1880 ppm/4h	
ATE US (gases)	1880.0000000 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 US (gases)	356.0000000 ppmV/4h	
ATE US (vapors)	0.9900000 mg/l/4h	
ATE US (dust, mist)	0.9900000 mg/l/4h	
Nitrogen (7727-37-9)		
LC50 inhalation rat (ppm)	410000 ppm/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	

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Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated	: Not classified
exposure)	No known effects from this product.
Aspiration hazard	: Not classified
	Not applicable for gases and gas-mixtures.
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.

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)	
Hydrogen sulfide (7783-06-4)		
LC50 fish 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 - 19%,) Pentane (0 - 0.75%,) Carbon Monoxide (0.0005-0.09%,) Hydrogen Sulfide (0.001-0.025%) in balance Nitrogen		
Persistence and degradability No data available.		
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 gase		
Hydrogen sulfide (7783-06-4)		
Persistence and degradability	Not applicable for inorganic gases.	
Nitrogen (7727-37-9)		
Persistence and degradability	No ecological damage caused by this product.	

#### 12.3. Bioaccumulative potential

Oxygen ( 0 - 19%,) Pentane (0 - 0.75%,) Carbon Monoxide (0.0005-0.09%,) Hydrogen Sulfide (0.001-0.025%) in balance Nitrogen			
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 produ	uct.	
Pentane (109-66-0)			
Log Pow	3.39		
Carbon monoxide (630-08-0)			
Log Pow	1.78		
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Carbon monoxide (630-08-0)	
Carbon monoxide (630-08-0) Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.
•	
Hydrogen sulfide (7783-06-4)	(no biococumulation synapted)
BCF fish 1 Log Pow	(no bioaccumulation expected) Not applicable for inorganic gases.
Bioaccumulative potential	No data available.
Nitrogen (7727-37-9)	
Log Pow	Not applicable for inorganic gases.         No ecological damage caused by this product.
Bioaccumulative potential	
2.4. Mobility in soil	
	on Monoxide (0.0005-0.09%,) Hydrogen Sulfide (0.001-0.025%) in balance Nitrogen
Mobility in soil	No data available.
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.
Hydrogen sulfide (7783-06-4)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.
Nitrogen (7727-37-9)	All sectorized descence according this method.
Ecology - soil	No ecological damage caused by this product.
2.5. Other adverse effects	
ffect on ozone layer	: None.
ffect on the global warming	: Contains greenhouse gas(es) not covered by 842/2006/EC.
SECTION 13: Disposal consideration	IS
3.1. Waste treatment methods	
Vaste 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. Ensure that the emission levels from local
Nasta dianagal recommandations	regulations or operating permits are not exceeded. : Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at www.cganet.com for more
Vaste disposal recommendations	guidance on suitable disposal methods.
SECTION 14: Transport information	
n accordance with DOT	
ransport document description	: UN1956 Compressed gas, n.o.s. (Oxygen, Nitrogen)
JN-No.(DOT)	: 1956
OOT NA no.	: UN1956
OOT Proper Shipping Name	: Compressed gas, n.o.s.
lazard labels (DOT)	: 2.2 - Non-flammable gas
	2
,	: G - Identifies PSN requiring a technical name
OOT Packaging Exceptions (49 CFR 173.xxx)	: 306;307
OOT Packaging Exceptions (49 CFR 173.xxx) OOT Packaging Non Bulk (49 CFR 173.xxx)	: 306;307 : 302;305
OOT Packaging Exceptions (49 CFR 173.xxx) OOT Packaging Non Bulk (49 CFR 173.xxx) OOT Packaging Bulk (49 CFR 173.xxx)	: 306;307 : 302;305 : 314;315
OOT Symbols OOT Packaging Exceptions (49 CFR 173.xxx) OOT Packaging Non Bulk (49 CFR 173.xxx) OOT Packaging Bulk (49 CFR 173.xxx) OOT Quantity Limitations Passenger aircraft/rail 49 CFR 173.27)	: 306;307 : 302;305 : 314;315

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DOT Quantity Limitations Cargo aircraft only (49	150 kg
CFR 175.75)	
OOT 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 w 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) 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	-
	1956
UN-No.(IATA) Proper Shipping Name (IATA)	COMPRESSED GAS, N.O.S.
Class (IATA)	2
	2
SECTION 15: Regulatory information	
15.1. US Federal regulations	
Pentane (109-66-0)	
Listed on the United States TSCA (Toxic Subst	ces Control Act) inventory
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
Hydrogen sulfide (7783-06-4)	
Listed on the United States TSCA (Toxic Subst Listed on the United States SARA Section 302 Listed on United States SARA Section 313	ces Control Act) inventory
SARA Section 302 Threshold Planning Quantity (TPQ)	500
SARA Section 313 - Emission Reporting	1.0 %
15.2 International regulations	
15.2. International regulations CANADA	
Oxygen (7782-44-7)	
Listed on the Canadian DSL (Domestic Sustan	s List)

Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class A - Compressed Gas Class C - Oxidizing Material	
Pentane (109-66-0)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class B Division 2 - Flammable Liquid	
Carbon monoxide (630-08-0)		
Listed on the Canadian DSL (Domestic Sustances 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	

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Hydrogen sulfide (7783-06-4)			
Listed on the Canadian DSL (Domesti	Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification       Class A - Compressed Gas         Class B Division 1 - Flammable Gas       Class D Division 1 - Flammable Gas         Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxi       effects         Class D Division 2 Subdivision B - Toxic material causing other toxic effects       Class D Division 2 Subdivision B - Toxic material causing other toxic effects			
Nitrogen (7727-37-9)			
Listed on the Canadian DSL (Domestic Sustances List)			
WHMIS Classification	Class A - Compressed Gas		

### **EU-Regulations**

Hydrogen sulfide (7783-06-4)	
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 [DSD] or 1999/45/EC [DPD]

#### 15.2.2. National regulations

### Hydrogen sulfide (7783-06-4)

Listed on 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

U.S California - Proposition 65 - Carcinogens List       U.S California - Proposition 65 - Developmental Toxicity       U.S California - Proposition 65 - Reproductive Toxicity - Female       No significance risk le (NSRL)         Oxygen (7782-44-7)       Ves       U.S Massachusetts - Right To Know List       No significance risk le (NSRL)         U.S Massachusetts - Right To Know List       U.S Pennsylvania - RTK (Right to Know) List       Ves       Ves         Dus New Jersey - Right to Know List       U.S Pennsylvania - RTK (Right to Know) List       Ves       Ves         U.S Pennsylvania - RTK (Right to Know List       U.S Pennsylvania - RTK (Right to Know) List       Ves       Ves         U.S Massachusetts - Right To Know List       U.S Pennsylvania - RTK (Right to Know) List       Ves       Ves         U.S Massachusetts - Right To Know List       U.S Pennsylvania - RTK (Right to Know) List       Ves       Ves         U.S Massachusetts - Right To Know List       U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List       U.S Pennsylvania - RTK (Right to Know) List         Hydrogen sulfide (7783-06-4)       U.S Pennsylvania - RTK (Right to Know) List       Ves - Pennsylvania - RTK (Right to Know) List         U.S Pennsylvania - RTK (Right to Know) List       U.S Pennsylvania - RTK (Right to Know) List       Ves - Pennsylvania - RTK (Right to Know) List         U.S New Jersey - Right to Know Vist	Carbon monoxide (630-08-	0)			
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         Pentane (109-66-0)         U.S Massachusetts - Right To Know List         U.S New Jersey - Right to Know List         U.S New Jersey - Right to Know List         U.S Pennsylvania - RTK (Right to Know) List         Carbon monoxide (630-08-0)         U.S Massachusetts - Right To Know List         U.S Massachusetts - Right to Know Hazardous Substance List         U.S Massachusetts - Right to Know Jest         U.S Massachusetts - Right to Know List         U.S Massachusetts - Right to Know List         U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List         U.S Pennsylvania - RTK (Right to Know) List         U.S Massachusetts - Right To Know List         U.S Pennsylvania - RTK (Right to Know) List         U.S Massachusetts - Right To Know List         U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List         U.S Pennsylvania - RTK (Right to Know) List         U.S Pennsylvania - RTK (Right to Know) List	Proposition 65 -	Proposition 65 -	Proposition 65 - Reproductive Toxicity -	Proposition 65 -	No significance risk level (NSRL)
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 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 Carbon monoxide (630-08-0) U.S Massachusetts - Right To Know List U.S New Jersey - Right to Know Hazardous Substance List U.S New Jersey - Right to Know Hazardous Substance 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 Hydrogen sulfide (778-06-4) U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S New Jersey - Right to Know List U.S Pennsylvania - RTK (Right to Know) List		Yes			
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Nitrogen (7727-37-9)	U.S New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List				
	Nitrogen (7727-37-9)				
U.S Massachusetts - Right To Know List	U.S Massachusetts - Right				

Safety Data Sheet

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

### Nitrogen (7727-37-9)

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

SECTION 16: Other information	
Indication of changes	<ol> <li>Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.</li> </ol>
Revision date	: 08/15/2014
Other information	: This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29

product.

CFR, 1910.1200. Other government regulations must be reviewed for applicability to this

#### 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
Asp. Tox. 1	Aspiration hazard Category 1
Compressed gas	Gases under pressure Compressed gas
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 2	Flammable liquids Category 2
Liquefied gas	Gases under pressure Liquefied gas
Ox. Gas 1	Oxidizing 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
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H225	Highly flammable liquid and vapor
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
H330	Fatal if inhaled
H331	Toxic if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H360	May damage fertility or the unborn child
H372	Causes damage to organs 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, accruacy, 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.