

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name

- **Methane (28.5%), Carbon Dioxide (19.5%), Carbon Monoxide (3%), Hydrogen (Balance)**

Product Code

- MSDS No. 90062

Relevant identified uses of the substance or mixture and uses advised against

Recommended use

- Calibration Gas

Details of the supplier of the safety data sheet

Manufacturer

- Air Liquide

www.us.airliquide.com
sds@airliquide.com

Emergency telephone number

Section 2: Hazard Identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Flammable Gases 1 - H220
Compressed Gas - H280
Reproductive Toxicity 1A - H360
Simple Asphyxiant

Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Extremely flammable gas - H220
Contains gas under pressure; may explode if heated - H280
May damage fertility or the unborn child. - H360
May displace oxygen and cause rapid suffocation.

Precautionary statements

- Prevention**
- Obtain special instructions before use. - P201
Do not handle until all safety precautions have been read and understood. - P202
Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210

- Response**
- Wear protective gloves/protective clothing/eye protection/face protection. - P280
 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely. - P377
 - Eliminate all ignition sources if safe to do so. - P381
 - IF exposed or concerned: Get medical advice/attention. - P308+P313

- Storage/Disposal**
- Store in a well-ventilated place. - P403
 - Store locked up. - P405
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

Other hazards

OSHA HCS 2012

- Mixtures containing carbon dioxide can increase respiration and heart rate. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

Classification of the substance or mixture

WHMIS

- Compressed Gas - A
- Flammable Gases - B1
- Very Toxic - D1A
- Other Toxic Effects - D2A

Label elements

WHMIS



- Compressed Gas - A
- Flammable Gases - B1
- Very Toxic - D1A
- Other Toxic Effects - D2A

Other hazards

WHMIS

- Mixtures containing carbon dioxide can increase respiration and heart rate. This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments

Hydrogen	CAS:1333-74-0	49%	NDA	OSHA HCS 2012: Flam. Gas 1; Press. Gas - Comp.; Simple Asphyxiant	Balance
Methane	CAS:74-82-8	28.5%	NDA	OSHA HCS 2012: Flam. Gas 1; Press. Gas - Comp.; Simple Asphyxiant	NDA
Carbon dioxide	CAS:124-38-9	19.5%	Inhalation-Rat LC50 • 470000 ppm 30 Minute(s)	OSHA HCS 2012: Press. Gas - Comp.; Simple Asphyxiant	NDA
Carbon monoxide	CAS:630-08-0	3%	Inhalation-Rat LC50 • 1807 ppm 4 Hour(s)	OSHA HCS 2012: Flam. Gas 1; Press Gas - Comp.; Repr. 1A; Acute Tox. 3 (inhl)	NDA

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- Although exposure is unlikely, in case of contact immediately flush skin with running water. If skin irritation develops get medical advice/attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with eyes directly, flush with gently flowing fresh water thoroughly. Get medical attention immediately if symptoms occur.

Ingestion

- As this product is a gas, refer to the inhalation section. First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Other information

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO GASES WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus must be worn. Victim(s) who experience any adverse effect after over-exposure to this gas mixture must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physician or other health professional with victim(s).

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • SMALL FIRES: Dry chemical or CO₂.
LARGE FIRES: Water spray or fog.

Unsuitable Extinguishing Media • No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • EXTREMELY FLAMMABLE
Will form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.

Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
Containers may explode when heated.
Ruptured cylinders may rocket.

Hazardous Combustion Products

- No data available

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear positive pressure self-contained breathing apparatus (SCBA).
DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED
Move containers from fire area if you can do it without risk.
FIRE: If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.
FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.
FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
FIRE INVOLVING TANKS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
FIRE INVOLVING TANKS: Cool containers with flooding quantities of water until well after fire is out.
FIRE INVOLVING TANKS: Do not direct water at source of leak or safety devices; icing may occur.
FIRE INVOLVING TANKS: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Ventilate the area before entry.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Stop leak if you can do it without risk. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. LARGE SPILL: Consider initial downwind evacuation for at least 800 meters (1/2 mile)

Environmental precautions

- No special environmental precautions necessary.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- All equipment used when handling the product must be grounded.
Stop leak if you can do it without risk.
If possible, turn leaking containers so that gas escapes rather than liquid.
Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.
Do not direct water at spill or source of leak.
Isolate area until gas has dispersed.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Keep away from heat and ignition sources – No Smoking. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Use only non-sparking tools. Use only with adequate ventilation. Ventilate closed spaces before entering. Be aware of any signs of dizziness or fatigue,

especially if work is done in a poorly ventilated area; exposures to fatal concentrations of this gas mixture could occur without any significant warning symptoms, due to olfactory fatigue or oxygen deficiency. Cylinders should be firmly secured to prevent falling or being knocked-over. Use explosion-proof - electrical, ventilating and/or lighting equipment. Do not attempt to repair, adjust, or in any other way modify cylinders. If there is a malfunction or another type of operational problem, contact nearest distributor immediately. Empty containers retain product residue and can be hazardous. Do not cut, weld, puncture or incinerate container.

Conditions for safe storage, including any incompatibilities

Storage

- Cylinders should be stored in dry, well-ventilated areas away from sources of heat, ignition and direct sunlight. Do not allow area where cylinders are stored to exceed 52C (125F). Cylinders must be protected from the environment, and preferably kept at room temperature approximately 21C (70F). Protect cylinders against physical damage. Cylinders should be firmly secured to prevent falling or being knocked-over. Store locked up.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	NIOSH	OSHA
Carbon monoxide (630-08-0)	STELs	Not established	100 ppm STEL	200 ppm STEV; 230 mg/m3 STEV	Not established	Not established
	TWAs	25 ppm TWA	25 ppm TWA	35 ppm TWAEEV; 40 mg/m3 TWAEEV	35 ppm TWA; 40 mg/m3 TWA	50 ppm TWA; 55 mg/m3 TWA
	Ceilings	Not established	Not established	Not established	200 ppm Ceiling; 229 mg/m3 Ceiling	Not established
Carbon dioxide (124-38-9)	STELs	30000 ppm STEL	30000 ppm STEL	30000 ppm STEV; 54000 mg/m3 STEV	30000 ppm STEL; 54000 mg/m3 STEL	Not established
	TWAs	5000 ppm TWA	5000 ppm TWA	5000 ppm TWAEEV; 9000 mg/m3 TWAEEV	5000 ppm TWA; 9000 mg/m3 TWA	5000 ppm TWA; 9000 mg/m3 TWA
Methane (74-82-8)	TWAs	1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	1000 ppm TWA	Not established	Not established	Not established

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof - electrical, ventilating and/or lighting equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear safety glasses.

Skin/Body

- Wear leather gloves when handling cylinders.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEV = Short Term Exposure Value

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWA EV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Gas	Appearance/Description	Colorless compressed gas with no odor.
Color	Colorless	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	-162 C(-259.6 F) Methane	Melting Point	-182.5 C(-296.5 F) Methane
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Moderately soluble
Viscosity	Data lacking		
Volatility			
Vapor Pressure	46700 hPa @ -82.5 C(-116.5 F) Methane	Vapor Density	0.56 Air=1 Methane
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	537 C(998.6 F) Methane
Flammability (solid, gas)	Flammable gas.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excess heat, sparks, open flame.

Incompatible materials

- Keep away from oxidizing agents.

Hazardous decomposition products

- None

Section 11 - Toxicological Information

Information on toxicological effects

Component Name	CAS	Data
Carbon monoxide (3%)	630-08-0	Acute Toxicity: ihl-rat LC50:1807 ppm/4H; Reproductive: ihl-rat TCLo:150 ppm (0-20D preg)
GHS Properties		Classification
Acute toxicity		OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard		OSHA HCS 2012 • Classification criteria not met
Carcinogenicity		OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity		OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization		OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation		OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation		OSHA HCS 2012 • Classification criteria not met
Skin sensitization		OSHA HCS 2012 • Classification criteria not met
STOT-RE		OSHA HCS 2012 • Classification criteria not met
STOT-SE		OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction		OSHA HCS 2012 • Toxic to Reproduction 1A

Route(s) of entry/exposure

- Inhalation

Potential Health Effects

Inhalation

Acute (Immediate)

- Inhalation over-exposures to atmospheres containing more than the Threshold Limit Value of Carbon Monoxide (25 ppm), another component of this gas mixture, can result in serious health consequences. Carbon Monoxide is classified as a chemical asphyxiant, producing a toxic action by combining with the hemoglobin of the blood and replacing the available oxygen. Through this replacement, the body is deprived of the required oxygen, and asphyxiation occurs. Since the affinity of Carbon Monoxide for hemoglobin is about 200-300 times that of oxygen, only a small amount of Carbon Monoxide will cause a toxic reaction to occur. Carbon Monoxide exposures in excess of 50 ppm will produce symptoms of poisoning if breathed for a sufficiently long time. If this gas mixture is released in a small, poorly ventilated area (i.e. an enclosed or confined space), symptoms which may develop include the following: bright red lips and fingernails, headache progressing to heart palpitations, staggering, confusion, nausea, dizziness and unconsciousness with higher concentration exposures. For exposures greater than 2500 ppm there is potential for collapse and death before warning symptoms are experienced.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Eye

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- Under normal conditions of use, no health effects are expected.

Ingestion

Acute (Immediate)**Chronic (Delayed)****Carcinogenic Effects****Reproductive Effects**

- Ingestion is not anticipated to be a likely route of exposure to this product.
- Ingestion is not anticipated to be a likely route of exposure to this product.
- The components of this material are not found on the following lists: NTP and IARC; therefore, they are not considered to be, nor suspected to be, cancer-causing agents by these agencies.
- The Carbon Monoxide component of this gas mixture can cause teratogenic effects in humans. Severe exposure to Carbon Monoxide during pregnancy has caused adverse effects and the death of the fetus. In general, maternal symptoms are an indicator of the potential risk to the fetus since Carbon Monoxide is toxic to the mother before it is toxic to the fetus.

Key to abbreviations

LC = Lethal Concentration

TC = Toxic Concentration

Section 12 - Ecological Information

Toxicity

- Material data lacking.

Persistence and degradability

- Material data lacking.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Material data lacking.

Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1954	Compressed gas, flammable, n.o.s.	2.1	NDA	NDA
TDG	UN1954	COMPRESSED GAS, FLAMMABLE, N.O.S. (Hydrogen, Methane)	2.1	NDA	NDA

IMO/IMDG	UN1954	Compressed gas, flammable, n.o.s. (Hydrogen, Methane)	2.1	NDA	NDA
IATA/ICAO	UN1954	COMPRESSED GAS, FLAMMABLE, N.O.S. (Hydrogen, Methane)	2.1	NDA	NDA

Special precautions for user

- Cylinders should be transported in a secure position, in a well-ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Other information

DOT • Forbidden for Passenger aircraft/rail transport and Cargo aircraft.

TDG • Forbidden for Transport in Passenger carrying ship, Passenger Road Vehicle or Passenger Carrying Railway.

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Fire, Pressure(Sudden Release of)

State Right To Know				
Component	CAS	MA	NJ	PA
Hydrogen	1333-74-0	Yes	Yes	Yes
Methane	74-82-8	Yes	Yes	Yes
Carbon dioxide	124-38-9	Yes	Yes	Yes
Carbon monoxide	630-08-0	Yes	Yes	Yes

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Hydrogen	1333-74-0	Yes	No	Yes
Methane	74-82-8	Yes	No	Yes
Carbon dioxide	124-38-9	Yes	No	Yes
Carbon monoxide	630-08-0	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Carbon monoxide 630-08-0 3% A, B1, D1A, D2A
- Hydrogen 1333-74-0 49% A, B1
- Carbon dioxide 124-38-9 19.5% A; Uncontrolled product according to WHMIS classification criteria (solid)
- Methane 74-82-8 28.5% A, B1

Canada - WHMIS - Ingredient Disclosure List

• Carbon monoxide	630-08-0	3%	0.1 %
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	1 %
• Methane	74-82-8	28.5%	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Carbon monoxide	630-08-0	3%	developmental toxicity, initial date 7/1/89
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Carbon monoxide	630-08-0	3%	
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Carbon monoxide	630-08-0	3%	Not Listed
• Hydrogen	1333-74-0	49%	Not Listed
• Carbon dioxide	124-38-9	19.5%	Not Listed
• Methane	74-82-8	28.5%	Not Listed

Other Information

- WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16 - Other Information

Last Revision Date

- 13/December/2012

Preparation Date

- 13/December/2012

Disclaimer/Statement of Liability

- To the best of Air Liquide'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.

Key to abbreviations

NDA = No Data Available