

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 09/15/2015 Version: 2.0

lixture litric Oxide (0.00001% - 0.15%), Carbon I 5.00%) in Nitrogen G-2004-03156 e or mixture and uses advised against est gas/Calibration gas. sheet	Monoxide (1.00% - 4.25%), Carbon Dioxide (3.00% -
itric Oxide (0.00001% - 0.15%), Carbon I 5.00%) in Nitrogen G-2004-03156 e or mixture and uses advised against est gas/Calibration gas.	
5.00%) in Nitrogen G-2004-03156 e or mixture and uses advised against est gas/Calibration gas.	
e or mixture and uses advised against est gas/Calibration gas.	
est gas/Calibration gas.	
sheet	
HEMTREC: 1-800-424-9300	
e	
	Contains gas under pressure; may explode if heated
H372 -	May damage fertility or the unborn child Causes damage to organs (central nervous system) through prolonged or repeated exposure
	infough protonged of repeated exposure
GHS04 GHS08	
langer	
 280 - Contains gas under pressure; may 280 - May damage fertility or the unborn 272 - Causes damage to organs (central xposure 26A-HG03 - May increase respiration and 26A-HG10 - Asphyxiating even with adeq 	child nervous system) through prolonged or repeated I heart rate
308+P313 - If exposed or concerned: Ge 403 - Store in a well-ventilated place 405 - Store locked up 501 - Dispose of contents/container in ac egulations	ilated area in, protective gloves, protective clothing p fresh air and keep comfortable for breathing et medical advice/attention ccordance with local/regional/national/international mbient temperature exceeds 52°C (125°F) levice in the piping nd when empty
	H280 - H360 - H372 - Causes damage fertility or the unborn H372 - Causes damage for organs (central xposure H374 - Causes damage to organs (central xposure H374 - Cause damage to organs (central xposure H374 - Cause damage to

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CGA-PG14 - Approach suspected leak area with caution CGA-PG21 - Open valve slowly

2.3. Other hazards

Other hazards not contributing to the classification

: This product contains a chemical asphyxiant.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Nitrogen	(CAS No) 7727-37-9	70.6 - 95.99999	Compressed gas, H280
Carbon dioxide	(CAS No) 124-38-9	3 - 25	Liquefied gas, H280
Carbon Monoxide	(CAS No) 630-08-0	1 - 4.25	Flam. Gas 1, H220 Compressed gas, H280 Acute Tox. 3 (Inhalation:gas), H331 Repr. 1A, H360 STOT RE 1, H372
Nitric oxide	(CAS No) 10102-43-9	0.00001 - 0.15	Ox. Gas 1, H270 Compressed gas, H280 Acute Tox. 1 (Inhalation:gas), H330 Skin Corr. 1B, H314 STOT SE 2, H371

Full text of H-phrases: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Adverse effects not expected from this product.
First-aid measures after eye contact	: Adverse effects not expected from this product.
First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.	
4.2. Most important symptoms and effect	ts, both acute and delayed
Symptoms/injuries after inhalation	: Asphyxiating even with adequate oxygen. May increase respiration and heart rate.
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	: May damage fertility. May damage the unborn child. Causes damage to organs (central nervous system) through prolonged or repeated exposure.

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.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.	
Unsuitable extinguishing media	: Do not use water jet to extinguish.	
5.2. Special hazards arising from the s	ubstance or mixture	
Fire hazard	: The product is not flammable.	
Explosion hazard	: Product is not explosive. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.	Э
Reactivity	: None known.	
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5.3. Advice for firefighters	
Firefighting instructions	: In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	: Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release m	easures
6.1. Personal precautions, protective	equipment and emergency procedures
General measures	: Ensure adequate ventilation.
6.1.1. For non-emergency personnel	
Protective equipment	: Wear protective equipment consistent with the site emergency plan.
Emergency procedures	: 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 contain	nment 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.	
SECTION 7: Handling and storage	9
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. 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 of in a well-ventilated area.

Hygiene	e measures	: Do not eat, drink or smoke when using this product.
7.2.	Conditions for safe storage, includ	ing any incompatibilities
Technic	cal measures	: Comply with applicable regulations.
Storage	e 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.

: None known.

Incompatible materials : None known.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Incompatible products

GIH TWA (ppm) HA PEL (TWA) (mg/m ³)	25 ppm 55 mg/m³	
(), (3)	55 mg/m³	
A DE (T A A) (nnm)		
HA PEL (TWA) (ppm)	50 ppm	
Carbon dioxide (124-38-9)		
GIH TWA (ppm)	5000 ppm	
GIH STEL (ppm)	30000 ppm	
HA PEL (TWA) (mg/m³)	9000 mg/m³	
3 3	IH TWA (ppm) IH STEL (ppm)	

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Carbon dioxide (124-38-9)			
OSHA	OSHA PEL (TWA) (ppm)	5000 ppm	
Nitric oxide (10102-43-9)			
ACGIH	ACGIH TWA (ppm)	25 ppm	
OSHA	OSHA PEL (TWA) (mg/m ³)	30 mg/m ³	
OSHA	OSHA PEL (TWA) (ppm)	25 ppm	

8.2. Exposure controls	
Appropriate engineering controls	Ensure exposure is below occupational exposure limits. Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Consider work permit system e.g. for maintenance activities. Alarm detectors should be used when toxic gases may be released.
Hand protection	: Wear working gloves when handling gas containers. 29 CFR 1910.138: Hand Protection.
Eye protection	: Wear safety glasses with side shields. 29 CFR 1910.133: Eye and Face Protection.
Skin and body protection	: Wear suitable protective clothing, e.g lab coats, coveralls or flame resistant clothing.
Respiratory protection	: None necessary during normal and routine operations. See Sections 5 & 6.
Thermal hazard protection	: None necessary during normal and routine operations.
Environmental exposure controls	: Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.
Other information	: Wear safety shoes while handling containers. 29 CFR 1910.136: Foot Protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and	chemical properties
Physical state	: Gas
Appearance	: Clear, colorless gas.
Color	: Colorless
Odor	: Irritating/pungent odour
Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable - not flammable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: See Section 2.1 and 2.2
Explosion limits	: Not applicable - not flammable
Explosive properties	: Not applicable - not flammable.
Oxidizing properties	: None.
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Molecular mass	: Not applicable for gas-mixtures.
Relative gas density	: Similar to air
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

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9.2.	Other information				
No addi	No additional information available				
SECT	SECTION 10: Stability and reactivity				
10.1.	Reactivity				
None kn	iown.				
10.2.	Chemical stability				
Stable u	nder normal conditions.				
10.3.	Possibility of hazardous reactions				
None kn	None known.				
10.4.	Conditions to avoid				
None ur	None under recommended storage and handling conditions (see section 7).				
10.5.	Incompatible materials				
None kn	iown.				
10.6.	Hazardous decomposition products				
Under normal conditions of storage and use hazardous decomposition products should not be produced.					
SECTION 11: Toxicological information					
11.1.	Information on toxicological effects				
Acute to	xicity : Not classified				

Carbon Monoxide (630-08-0)	
LC50 inhalation rat (ppm)	1880 ppm/4h
ATE US (gases)	1880.000 ppmV/4h
Carbon dioxide (124-38-9)	
LC50 inhalation rat (ppm)	820000 ppm/4h
Nitrogen (7727-37-9)	
LC50 inhalation rat (ppm)	820000 ppm/4h
Nitric oxide (10102-43-9)	
LC50 inhalation rat (ppm)	57.5 ppmV/4h
ATE US (gases)	57.500 ppmV/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Causes damage to organs (central nervous system) through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Asphyxiating even with adequate oxygen. May increase respiration and heart rate.
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.

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Chronic symptoms

: May damage fertility. May damage the unborn child. Causes damage to organs (central nervous system) through prolonged or repeated exposure.

2.1. Toxicity to additional information available 2.2. Persistence and degradability Carbon Monoxide (630-08-0) Persistence and degradability Will not undergo hydrolysis. Not readily biodegradable. Not applicable for inorganic gases. Carbon dioxide (124-38-9) Persistence and degradability No ecological damage caused by this product. Nitrogen (7727-37-9) Persistence and degradability No ecological damage caused by this product. Nitric oxide (10102-43-9) Persistence and degradability Not applicable for inorganic gases. 2.3. Bioaccumulative potential Not applicable for inorganic gases. 2.3. Bioaccumulative potential Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9. Carbon Monoxide (630-08-0) Log Pow 0.83 Bioaccumulative potential Not ecological damage caused by this product. Nitrogen (7727-37-9) Log Pow 0.83 Bioaccumulative potential No ecological damage caused by this product. Nitro oxide (10102-43-9) No ecological damage caused by this product. Nitrogen (7727-37-9) Log Pow No t applicable for inorganic gases. Bioaccumulative potential No ecological damage caused by this product. Nitro oxide (10102-	SECTION 12: Ecological information	
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BCF fish 1 (no bioaccumulation) Log Pow 0.83 Bioaccumulative potential No ecological damage caused by this product. Nitrogen (7727-37-9) Image: Caused by this product. Log Pow Not applicable for inorganic gases. Bioaccumulative potential No ecological damage caused by this product. Nitric oxide (10102-43-9) Image: Caused by this product. Log Pow Not applicable for inorganic gases. Bioaccumulative potential No ecological damage caused by this product. Nitric oxide (10102-43-9) Image: Caused by this product. Log Pow Not applicable for inorganic gases. Bioaccumulative potential No data available. 2.4. Mobility in soil Carbon Monoxide (630-08-0) Ecology - soil Ecology - soil Because of its high volatility, the product is unlikely to cause ground or water pollution. Carbon dioxide (124-38-9) Image: Cause of its high volatility is unlikely to cause ground or water pollution.		
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Bioaccumulative potential No ecological damage caused by this product. Nitrogen (7727-37-9) Not applicable for inorganic gases. Bioaccumulative potential No ecological damage caused by this product. Nitric oxide (10102-43-9) Not applicable for inorganic gases. Log Pow Not applicable for inorganic gases. Bioaccumulative potential No ecological damage caused by this product. Nitric oxide (10102-43-9) Vot applicable for inorganic gases. Log Pow Not applicable for inorganic gases. Bioaccumulative potential No data available. 2.4. Mobility in soil Carbon Monoxide (630-08-0) Ecology - soil Ecology - soil Because of its high volatility, the product is unlikely to cause ground or water pollution. Carbon dioxide (124-38-9) Implication of the product is unlikely to cause ground or water pollution.		
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Ecology - soil Because of its high volatility, the product is unlikely to cause ground or water pollution. Carbon dioxide (124-38-9) Carbon dioxide (124-38-9)	2.4. Mobility in soil	
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Carbon dioxide (124-38-9)		Because of its high volatility, the product is unlikely to cause ground or water pollution.
Ecology - soli INO ecological damage Caused by this product.	Ecology - soil	No ecological damage caused by this product.
Nitrogen (7727-37-9)		
Ecology - soil No ecological damage caused by this product.		No ecological damage caused by this product.
Nitric oxide (10102-43-9)		
Ecology - soil Because of its high volatility, the product is unlikely to cause ground or water pollution.		Because of its high volatility, the product is unlikely to cause ground or water pollution.
2.5. Other adverse effects		
Effect on ozone layer : No known effects from this product.	:ffect on ozone layer :	No known effects from this product.

SECTION 13: Disposal considerations	3
13.1. Waste treatment methods	
Waste treatment methods	: Contact supplier if guidance is required. Do not discharge into any place where its accumulation could be dangerous. Ensure that the emission levels from local regulations or operating permits are not exceeded.
Waste disposal recommendations	: Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at www.cganet.com for more guidance on suitable disposal methods.

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SECTION 14: Transport information

Department of Transportation (DOT) In accordance with DOT Transport document description	: UN1956 Compressed gas, n.o.s. (Carbon Dioxide, Nitrogen), 2.2
UN-No.(DOT) Proper Shipping Name (DOT) Transport hazard class(es) (DOT) Hazard labels (DOT)	 UN1956 Compressed gas, n.o.s. 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115 2.2 - Non-flammable gas
DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) DOT Symbols DOT Packaging Exceptions (49 CFR 173.xxx)	 : 302;305 : 314;315 : G - Identifies PSN requiring a technical name : 306;307 : 75 km
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	ů – Elektrik Alektrik – Elektrik –
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	: No supplementary information available.
TDG	
Transport document description	: UN1956 COMPRESSED GAS, N.O.S., 2.2
UN-No. (TDG)	
TDG Proper Shipping Name TDG Primary Hazard Classes	: COMPRESSED GAS, N.O.S. : 2.2 - Class 2.2 - Non-Flammable, Non-Toxic Gas.
TDO T finally Hazard Glasses	
Transport by sea	
UN-No. (IMDG)	
Proper Shipping Name (IMDG)	: COMPRESSED GAS, N.O.S.
Class (IMDG)	: 2 - Gases
Air transport	
UN-No. (IATA)	: 1956
Proper Shipping Name (IATA)	: COMPRESSED GAS, N.O.S.
Class (IATA)	: 2
SECTION 15: Regulatory information	
15.1. US Federal regulations	

Carbon Monoxide (630-08-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Carbon dioxide (124-38-9)		
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		

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Nitric oxide (10102-43-9)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302			
SARA Section 302 Threshold Planning Quantity (TPQ)	100		
15.2. International regulations			
CANADA			
Carbon Monoxide (630-08-0)			
Listed on the Canadian DSL (Domestic Sustance	s 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		
Carbon dioxide (124-38-9)			
Listed on the Canadian DSL (Domestic Sustance	es List)		
WHMIS Classification	Class A - Compressed Gas		
Nitrogen (7727-37-9)			
Listed on the Canadian DSL (Domestic Sustance	es List)		
WHMIS Classification	Class A - Compressed Gas		
Nitric oxide (10102-43-9)			
Listed on the Canadian DSL (Domestic Sustance	s List)		
WHMIS Classification	Class A - Compressed Gas Class C - Oxidizing Material Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class E - Corrosive Material		
EU-Regulations No additional information available			

National regulations

-
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)
Carbon dioxide (124-38-9)
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 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)
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)

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Nitric oxide (10102-43-9)

- 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 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	Non-significant risk level (NSRL)
No	Yes	No	No	

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

Carbon dioxide (124-38-9)

- 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

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

Nitric oxide (10102-43-9)

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

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes

: Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.

Other information

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product.

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Full text of H-phrases:

ext of fi-philases.	
Acute Tox. 1 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 1
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	Oxidizing gases Category 1
Repr. 1A	Reproductive toxicity Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 2	Specific target organ toxicity (single exposure) Category 2
H220	Extremely flammable gas
H270	May cause or intensify fire; oxidizer
H280	Contains gas under pressure; may explode if heated
H314	Causes severe skin burns and eye damage
H330	Fatal if inhaled
H331	Toxic if inhaled
H360	May damage fertility or the unborn child
H371	May cause damage to organs
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 product. To the best of Air Liquide America Corporation'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 product 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.