

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 07/30/2015 Version: 2.0

educt form:Mixtureoduct name:Mixtureger (0.0001% + 2.0098%). Carbon Dioxide (0.00001% - 2.99%). Ethane (0.0001% - 2.99%). Ethane	SECTION 1: Identification of the	substance/mixture and of the company/undertaking
coduct name: Nitrogen (0.00001% - 82.00098%). Cashon Dioxide (0.0001% - 2.99%). Ethane (0.00001% - 84.9997%) in Methanecoduct code: SG-2005-0170 -2. Relevant identified uses of the substance or mixture and uses advised againstse of the substance/mixture: Test gas/Calibration gas.3. Details of the supplier of the safety data sheetr Liquidecover, to feet agas/Calibration gas.3. Details of the supplier of the safety data sheetr Liquider Liquidecover, to feet agas/Calibration gas.4. Emergency to leiphone numbermergency numberr CHEMTREC: 1-800-424-8300ECTION 21. Hazards Identification4. Emergency to leiphone numbermergency numberc. Classification of the substance or mixtureHSUS Classificationam. Gas 1 ampressed gasgal word (CHS-US)gal word (CHS-US)gara variation (CHS-US)gara variation (CHS-US)gara variation (CHS-US)c. Substance or numberecaulionary statements (CHS-US)c. Substance or variationc. CAL+401 - May (remery) fammable gas H280 - contains gas under pressure; may explode if heated CCAL+401 - May (remery formal and cause rapic precultors have been read and understood P210 - Keep away from had, hot surfaces, open fames, sparks No smoking P211 - Vse only variators if are variable variation and keep controlocide to the substance P210 - Keep away from heat, hot surfaces, open fames, sparks No smoking P211 - Vse only variators if are variable variation and keep controlocide to the substance P211 - Vse only variad keep contolocide to the subs	1.1. Product identifier	
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3. Details of the supplier of the safety data sheet         I liquide         000 Post Oak Boulevard         ouston, TX 77056 - USA         1:400:319-1704         www.us.airlquide.com         4. Energency telephone number         mergency number       : CHEMTREC: 1:800-424-9300         ECTION 2: Hazards identification         1. Classification of the substance or mixture         HS-US classification         am. Gas 1         am. Gas 1         propressed gas         ail text of H-phrases: see section 16         2. Label elements         HS-US fabeling         azard pictograms (GHS-US)         azard statements (GHS-US)         azard statements (GHS-US)         P202 - Do not handle until all safety precautions have been read and understood         CSA+HO4 - May form explosive mixtures with air         recautionary statements (GHS-US)         P202 - Do not handle until all safety precautions have been read and understood         P210 - Keep away from hat, have yor metholes and understood         P210 - Keep away from hat, have protective gloves, spacks No somking         P210 - Keep aeor protective gloves, protective cloathing         P304 +P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing         P304 +P340 - If inhaled: Remov	.2. Relevant identified uses of the s	substance or mixture and uses advised against
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100 Post Oak Boulevard Duoton, TX 77056 - USA + 400-819-1704 www.salidiquide com         4. Emergency telephone number         hergency number       c. CHEMTREC: 1-800-424-9300         ECTION 2: Hazardos identification         1         Classification of the substance or mixture         BOT Classification         H220 H230 classification         H220 H230 classification         BOT Classification         H220 H230 classification         BOT Classification         H220 H230 classification         BOT Classification         BOT Classification         BOT Classification         H220 H230 classification         BOT Classification         BOT Classification         BOT Classification         BOT Classification         Classification         BOT Classification         BOT Classification         Summer Classification         Classification         Summer Classification         Summer Classification         Summer Classification         <	1.3. Details of the supplier of the sat	fety data sheet
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H280 - Contains gas under pressure; may explode if heated OSHA-H01 - May displace oxygen and cause rapid suffocation CGA-HG04 - May form explosive mixtures with airrecautionary statements (GHS-US)P202 - Do not handle until all safety precautions have been read and understood P210 - Keep away from heat, hot surfaces, open flames, sparks No smoking P271 - Use only outdoors or in a well-ventilated area P280 - Wear eye protection, face protection, protective gloves, protective clothing P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P304+P313 - If exposed or concerned: Get medical advice/attention P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely P381 - Eliminate all ignition sources if safe to do so P403 - Store in a well-ventilated place P501 - Dispose of contents/container in accordance with local/regional/national/international regulations CGA-PG05 - Use a back flow preventive device in the piping CGA-PG06 - Close valve after each use and when empty CGA-PG01 - Use only with equipment rated for cylinder pressure CGA-PG14 - Approach suspected leak area with caution	Signal word (GHS-US)	: Danger
P210 - Keep away from heat, hot surfaces, open flames, sparks No smoking P271 - Use only outdoors or in a well-ventilated area P280 - Wear eye protection, face protection, protective gloves, protective clothing P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P308+P313 - If exposed or concerned: Get medical advice/attention P3077 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely P308 - P31 - Eliminate all ignition sources if safe to do so P403 - Store in a well-ventilated place P501 - Dispose of contents/container in accordance with local/regional/national/international regulations CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F) CGA-PG05 - Use a back flow preventive device in the piping CGA-PG06 - Close valve after each use and when empty CGA-PG10 - Use only with equipment rated for cylinder pressure CGA-PG14 - Approach suspected leak area with caution	Hazard statements (GHS-US)	H280 - Contains gas under pressure; may explode if heated OSHA-H01 - May displace oxygen and cause rapid suffocation
Y31/2015         EN (English US)         Page 1	Precautionary statements (GHS-US)	<ul> <li>P210 - Keep away from heat, hot surfaces, open flames, sparks No smoking</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear eye protection, face protection, protective gloves, protective clothing</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P308+P313 - If exposed or concerned: Get medical advice/attention</li> <li>P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely</li> <li>P381 - Eliminate all ignition sources if safe to do so</li> <li>P403 - Store in a well-ventilated place</li> <li>P501 - Dispose of contents/container in accordance with local/regional/national/international regulations</li> <li>CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F)</li> <li>CGA-PG05 - Use a back flow preventive device in the piping</li> <li>CGA-PG06 - Close valve after each use and when empty</li> <li>CGA-PG10 - Use only with equipment rated for cylinder pressure</li> </ul>
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CGA-PG21 - Open valve slowly

### 2.3. Other hazards

No additional information available

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
Methane	(CAS No) 74-82-8	15 - 99.99996	Compressed gas, H280
Propane	(CAS No) 74-98-6	0.00001 - 84.99997	Flam. Gas 1, H220 Liquefied gas, H280
Ethane	(CAS No) 74-84-0	0.00001 - 84.99997	Flam. Gas 1, H220 Liquefied gas, H280
Nitrogen	(CAS No) 7727-37-9	0.00001 - 82.00998	Compressed gas, H280
Carbon dioxide	(CAS No) 124-38-9	0.00001 - 2.99	Liquefied gas, H280

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 effective statements and effective sta	ffects, both acute and delayed
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 med	ical attention and special treatment needed
If you feel unwell, seek medical advice. If brea	athing is difficult, give oxygen.
<b>SECTION 5: Firefighting measures</b>	5
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	substance or mixture

5.2. Special nazards arising from the su	Distance or mixture
Fire hazard	: This product is flammable.
Explosion hazard	: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form flammable/explosive vapor-air mixture.
Reactivity	: None known.
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.

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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 measures		
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. Remove ignition sources. Monitor concentration of released product. Consider the risk of potentially explosive atmospheres. Wear self-contained breathing apparatus when entering atmospheres of unknown contaminant concentration until proven to be safe.	
6.2. Environmental precautions		
Try to stop release if safe to do so.		
6.3. Methods and material for containment	nt 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		
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. Handle empty containers with care because residual vapors are flammable. In use, may form flammable vapor-air mixture.	
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. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Use only non-sparking tools.	
Hygiene measures	: Do not eat, drink or smoke when using this product.	
7.2. Conditions for safe storage, includin	g any incompatibilities	
Technical measures	: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.	
Storage conditions	: Do not expose to temperatures exceeding 52°C (125°F). Keep container closed when not in use. Protect cylinder from physical damage. Store in well ventilated area.	
Incompatible products	: None known.	
Incompatible materials	: Oxidizing materials. Air.	
7.3. Specific end use(s)		
See Section 1.2.		

SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
Nitrogen (0.00001% - 82.009 in Methane	98%), Carbon Dioxide (0.00001% - 2.99%), Ethane (0.00001% - 84.99997%), Propane (0.00001% - 84.99997%)	
ACGIH	Not applicable	
OSHA	Not applicable	

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Carbon dioxide (12	4-38-9)		
ACGIH	ACGIH TWA (ppm)	5000 ppm	
ACGIH	ACGIH STEL (ppm)	30000 ppm	
OSHA	OSHA PEL (TWA) (mg/m³)	9000 mg/m <sup>3</sup>	
OSHA	OSHA PEL (TWA) (ppm)	5000 ppm	
Methane (74-82-8)			
ACGIH	ACGIH TWA (ppm)	1000 ppm	
OSHA	Not applicable	Not applicable	
Nitrogen (7727-37-9	9)		
ACGIH	Not applicable	Not applicable	
OSHA	Not applicable	Not applicable	
Propane (74-98-6)			
ACGIH	ACGIH TWA (ppm)	1000 ppm	
OSHA	OSHA PEL (TWA) (mg/m³)	1800 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	
Ethane (74-84-0)	Ethane (74-84-0)		
ACGIH	ACGIH TWA (ppm)	1000 ppm	
OSHA	Not applicable		

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. Oxygen detectors should be used when asphyxiating gases may be released. Consider work permit system e.g. for maintenance activities.
Hand protection	: Wear working gloves when handling gas containers. 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	<ul> <li>Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.</li> </ul>
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	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: See Section 2.1 and 2.2

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Explosion limits	: No data available
Explosive properties	: Without adequate ventilation formation of explosive mixtures may be possible.
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	: Heavier than air
Solubility	: No data available
Log Pow	: No data available
Log Kow	: 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
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 reactivit	у		
10.1. Reactivity			
None known.	,		
10.2. Chemical stability			
Stable under normal conditions.			
10.3. Possibility of hazardous reactions			
Can form explosive mixture with air.			
10.4. Conditions to avoid			
None under recommended storage and handlin	ng conditions (see section 7).		
10.5. Incompatible materials			
Oxidizing materials. Air.			
10.6. Hazardous decomposition product	ts		
Under normal conditions of storage and use ha	zardous decomposition products should not be produced.		
SECTION 11: Toxicological informa	tion		
11.1. Information on toxicological effect			
Acute toxicity	: Not classified		
Carbon dioxide (124-38-9)			
LC50 inhalation rat (ppm)	820000 ppm/4h		
Methane (74-82-8)			
LC50 inhalation rat (ppm)	820000 ppm/4h		
ATE US (gases)	820000.000 ppmV/4h		
Nitrogen (7727-37-9)			
LC50 inhalation rat (ppm)	820000 ppm/4h		
Propane (74-98-6)			
LC50 inhalation rat (mg/l)	658 mg/l/4h		
LC50 inhalation rat (ppm)	282800 ppm/4h		

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Ethane (74-84-0)	
LC50 inhalation rat (mg/l)	658 mg/l/4h
LC50 inhalation rat (ppm)	820000 ppm/4h
ATE US (gases)	820000.000 ppmV/4h
ATE US (vapors)	658.000 mg/l/4h
ATE US (dust, mist)	658.000 mg/l/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	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
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

No additional information available

#### 12.2. Persistence and degradability

Carbon dioxide (124-38-9)		
Persistence and degradability	No ecological damage caused by this product.	
Methane (74-82-8)		
Persistence and degradability	The substance is biodegradable. Unlikely to persist. No data available.	
Nitrogen (7727-37-9)		
Persistence and degradability	No ecological damage caused by this product.	
Propane (74-98-6)		
Persistence and degradability	The substance is biodegradable. Unlikely to persist.	
Ethane (74-84-0)		
Persistence and degradability	The substance is biodegradable. Unlikely to persist.	
12.3. Bioaccumulative potential		
Carbon dioxide (124-38-9)		
BCF fish 1	(no bioaccumulation)	
·		

BCF fish 1	(no bioaccumulation)		
Log Pow	0.83		
Bioaccumulative potential	No ecological damage caused by this product.	No ecological damage caused by this product.	
Methane (74-82-8)			
Log Pow	Not applicable for gas mixtures		
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Methane (74-82-8)		
Log Kow	Not applicable for gas mixtures	
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.	
Nitrogen (7727-37-9)		
Log Pow	Not applicable for inorganic gases.	
Bioaccumulative potential	No ecological damage caused by this product.	
Propane (74-98-6)		
Log Pow	2.36	
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.	
Ethane (74-84-0)		
Log Pow	1.81	
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.	
12.4. Mobility in soil		
Carbon dioxide (124-38-9)		
Ecology - soil	No ecological damage caused by this product.	
Methane (74-82-8)		
Mobility in soil	No data available.	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.	
Nitrogen (7727-37-9)		
Ecology - soil	No ecological damage caused by this product.	
••		
Propane (74-98-6) Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.	
Ethane (74-84-0)	Peopulae of its high valatility, the product is unlikely to equipe ground or water pollution	
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.	
Effect on the global warming	: Contains greenhouse gas(es) not covered by 842/2006/EC.	
SECTION 13: Disposal considerat	tions	
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 gas should be flared through a suitable burner v flash back arrestor. Do not discharge into areas where there is a risk of forming an explosive mixture with air.	
Waste disposal recommendations	<ul> <li>Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at www.cganet.com for more guidance on suitable disposal methods.</li> </ul>	
SECTION 14: Transport information	on	
Department of Transportation (DOT)		
In accordance with DOT		
	: UN1954 Compressed gas, flammable, n.o.s.	
Transport document description	: UN1954 Compressed gas, flammable, n.o.s.	

UN-No.(DOT)	: UN1954
Proper Shipping Name (DOT)	: Compressed gas, flammable, n.o.s.

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Hazard labels (DOT)	: 2.1 - Flammable gas	
	2	
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	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)		
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)		
DOT Vessel Stowage Location	: D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.	
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"	
Additional information		
Other information	: No supplementary information available.	
ADR		
Transport document description	: UN 1954 COMPRESSED GAS, FLAMMABLE, N.O.S., 2.1, (B/D)	
Class (ADR)	: 2 - Gases	
Hazard identification number (Kemler No.)	23	
Classification code (ADR)	: 1F	
Hazard labels (ADR)	: 2.1 - Flammable gases	
	2	
Orange plates	23 1954	
Tunnel restriction code (ADR) Limited quantities (ADR)	<b>1954</b> : B/D : 0	
Tunnel restriction code (ADR) Limited quantities (ADR)	<b>1954</b> : B/D	
Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR)	<b>1954</b> : B/D : 0	
Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR) Transport by sea	<b>1954</b> : B/D : 0	
Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR) Transport by sea JN-No. (IMDG)	1954 : B/D : 0 : E0	
Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR) Transport by sea UN-No. (IMDG) Proper Shipping Name (IMDG)	<b>1954</b> : B/D : 0 : E0	
Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR) <b>Transport by sea</b> UN-No. (IMDG) Proper Shipping Name (IMDG) Class (IMDG)	<ul> <li>1954</li> <li>B/D</li> <li>0</li> <li>E0</li> <li>1954</li> <li>COMPRESSED GAS, FLAMMABLE, N.O.S.</li> </ul>	
Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR) Transport by sea UN-No. (IMDG) Proper Shipping Name (IMDG) Class (IMDG) Air transport	<ul> <li>1954</li> <li>B/D</li> <li>0</li> <li>E0</li> <li>1954</li> <li>COMPRESSED GAS, FLAMMABLE, N.O.S.</li> </ul>	
Orange plates Tunnel restriction code (ADR) Limited quantities (ADR) Excepted quantities (ADR) <b>Transport by sea</b> UN-No. (IMDG) Proper Shipping Name (IMDG) Class (IMDG) <b>Air transport</b> UN-No. (IATA) Proper Shipping Name (IATA)	<ul> <li>1954</li> <li>B/D</li> <li>B/D</li> <li>B/D</li> <li>E0</li> <li>1954</li> <li>COMPRESSED GAS, FLAMMABLE, N.O.S.</li> <li>2 - Gases</li> </ul>	

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SECTION 15: Regulatory information
15.1. US Federal regulations
Carbon dioxide (124-38-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Methane (74-82-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Nitrogen (7727-37-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Propane (74-98-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Ethane (74-84-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

#### CANADA

Carbon dioxide (124-38-9)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class A - Compressed Gas	
Methane (74-82-8)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas	
Nitrogen (7727-37-9)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class A - Compressed Gas	
Propane (74-98-6)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas	
Ethane (74-84-0)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas	

#### **EU-Regulations**

Carbon dioxide (124-38-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Methane (74-82-8)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Nitrogen (7727-37-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Propane (74-98-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Ethane (74-84-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP] Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] No additional information available

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National regulations
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)
Methane (74-82-8)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
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)
Propane (74-98-6)
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)
Ethane (74-84-0)
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)

15.3. US State regulations

Carbon	dioxide	(124-38-9)
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- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Methane (74-82-8)

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

#### 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

#### Propane (74-98-6)

- 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

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- Ethane (74-84-0)
- 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

<b>SECTION 16: Other information</b>	on de la constant de
Indication of changes	<ul> <li>Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.</li> </ul>
Other information	<ul> <li>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.</li> </ul>
Full text of H-phrases:	

Compressed gas	Gases under pressure Compressed gas
Flam. Gas 1	Flammable gases Category 1
Liquefied gas	Gases under pressure Liquefied gas
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated

#### 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.