Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

Oxygen (Refrigerated Liquid)

Synonyms

Cryogenic Liquid Oxgyen; LOX

CAS Number

7782-44-7

Product Code

. 10075

EC Number

231-956-9

Molecular Formula

. :0 2:

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

Relevant identified use(s)

Medical and general analytical or synthetic chemical uses

1.3 Details of the supplier of the safety data sheet

Manufacturer

Air Liquide

2700 Post Oak Blvd. Houston, TX 77056 **United States** www.us.airliquide.com

Telephone (Technical) . 713-896-2896

sds@airliquide.com

Telephone (Technical) . 800-819-1704

1.4 Emergency telephone number

Manufacturer

800-424-9300 - CHEMTREC

Manufacturer

+1 703-527-3887 - Outside United States

Section 2: Hazards Identification

EU/EEC

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

 Oxidizing Gases 1 - H270 Refrigerated Liquefied Gas - H281

DSD/DPD

Oxidizing (O)

R8

2.2 Label Elements

CLP

DANGER





Hazard statements . H270 - May cause or intensify fire; oxidizer

H281 - Contains refrigerated gas; may cause cryogenic burns or injury

Precautionary statements

Prevention . P220 - Keep/Store away from clothing and other combustible materials.

P244 - Keep reduction valves free from grease and oil.

P282 - Wear cold insulating gloves, face shield and/or eye protection.

Response • P315 - Get immediate medical advice/attention.

P336 - Thaw frosted parts with lukewarm water. Do not rub affected area.

P370+P376 - In case of fire: Stop leak if safe to do so.

Storage/Disposal . P403 - Store in a well-ventilated place.

DSD/DPD



Risk phrases . R8 - Contact with combustible material may cause fire.

Safety phrases . S2 - Keep out of reach of children.

S17 - Keep away from combustible material.

2.3 Other Hazards

CLP

Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite. According to Regulation (EC) No. 1272/2008 (CLP) this material is considered

hazardous.

DSD/DPD

Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite. This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

Oxidizing Gases 1 - H270 Refrigerated Liquefied Gas - H281

Hazards Not Otherwise Classified - Health Hazard - Frostbite

2.2 Label elements OSHA HCS 2012

DANGER





Hazard statements . May cause or intensify fire; oxidizer - H270

Contains refrigerated gas; may cause cryogenic burns or injury - H281

Precautionary statements

Prevention . Keep/Store away from clothing and other combustible materials. - P220

Keep reduction valves free from grease and oil. - P244

Wear cold insulating gloves, face shield and/or eye protection. - P282

In case of fire: Stop leak if safe to do so. - P370+P376 Response .

Thaw frosted parts with lukewarm water. Do not rub affected area. - P336

Get immediate medical advice/attention. - P315

Storage/Disposal . Store in a well-ventilated place. - P403

2.3 Other hazards OSHA HCS 2012

 Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

 Compressed Gas - A Oxidizing - C

2.2 Label elements

WHMIS





 Compressed Gas - A Oxidizing - C

2.3 Other hazards

WHMIS

 Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.
 In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

NFPA



Section 3 - Composition/Information on Ingredients

3.1 Substances

Hazardous Components							
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments		
	CAS:7782-44-7 EC Number:231- 956-9	> 99.5%	NDA	EU DSD/DPD: Annex I - O; R8 EU CLP: Annex VI - Ox. Gas 1, H270; Press. Gas - Refr. Liq., H281 OSHA HCS 2012: Ox. Gas 1; Press Gas - Refr. Liq.	NDA		
Maximum Impurities	NDA	< 0.5%	NDA	EU CLP: Not Relevant OSHA HCS 2012: Not Relevant			

3.2 Mixtures

Material does not meet the criteria of a mixture in accordance with Regulation (EC) No

1272/2008.

Key to abbreviations

None of the trace impurities in this product contribute significantly to the hazards associated with the product. All hazard information pertinent to this * = product has been provided in the Safety Data Sheet, per the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and state equivalent standards.

Section 4 - First Aid Measures

4.1 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

 If frostbite has occurred, seek medical attention immediately; do NOT rub the affected area(s) or flush them with water. In order to prevent further tissue damage, do NOT attempt to remove frozen clothing from frostbitten areas. If frostbite has not occurred immediately and thoroughly wash contaminated skin with soap and water.

Eye

. If eye tissue is frozen, seek medical attention immediately; if tissue is not frozen, immediately and thoroughly flush the eyes with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation, pain, swelling, lacrimation or photophobia persist, get medical attention as soon as possible.

Ingestion

If frostbite has occurred, seek medical attention immediately; do NOT rub the affected area(s) or flush them with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

4.3 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.

4.4 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 overexposure 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 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media . Use extinguishing agent suitable for type of surrounding fire. SMALL FIRES: Dry chemical or CO2. LARGE FIRES: Water spray or fog.

Unsuitable Extinguishing Media

No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

. Containers may explode when heated. Ruptured cylinders may rocket. This gas vigorously accelerates combustion. Avoid all contact with combustible

materials. Some non-flammable materials in air will burn under an over-oxygenated atmosphere.

Hazardous Combustion Products

No data available

5.3 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

Always wear thermal protective clothing when handling refrigerated/cryogenic liquids. Wear positive pressure self-contained breathing apparatus (SCBA).

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 800 meters (1/2) mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all

FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

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: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.

Section 6 - Accidental Release Measures

6.1 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

Stop leak if you can do it without risk. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. Do not direct water at spill or source of leak. LARGE SPILL: Consider initial downwind evacuation for at least 500 meters (1/3 mile)

6.2 Environmental precautions

 Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Stop leak if you can do it without risk.

Do not direct water at spill or source of leak.

Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.

If possible, turn leaking containers so that gas escapes rather than liquid.

Isolate area until gas has dispersed.

Ventilate the area.

Allow substance to evaporate.

6.4 Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

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. 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Store in a cool, dry, well-ventilated place. Protect cylinders against physical damage.
 Cylinders should be firmly secured to prevent falling or being knocked-over.

7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

. Currently there are no applicable exposure limits established for this material.

8.2 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

Not required under normal conditions of use.

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.

Section 9 - Physical and Chemical Properties

9.1 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	-183.11 C(-297.598 F)	Melting Point	-218.55 C(-361.39 F)
Decomposition Temperature	Data lacking	рН	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	0.0489 % @ 0 C(32 F)
Viscosity	0.0002 Poise (P, Ps) or dyne- second/cm2 @ 0 C(32 F)	Explosive Properties	Data lacking
Oxidizing Properties:	Oxidizing gas.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	1.105 Air=1
Evaporation Rate	Data lacking		

IFlammability

Not relevant	UEL	Not relevant	
Not relevant	Autoignition	Not relevant	
Not flammable.			
Data lacking			
	Not relevant	Not relevant Autoignition Not flammable.	Not relevant Autoignition Not relevant Not flammable.

9.2 Other Information

No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

. Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

. Hazardous polymerization will not occur.

10.4 Conditions to avoid

Incompatible materials.

10.5 Incompatible materials

Organic materials.

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

Oxygen (Refrigerated Liquid) 7782-44-7								
Test Type	Dosage	Route	Species	Duration	Results	Test Class	Target Organs	Comments
Reproductive	= 10 pph	Inhalation	Rat	9 Hour(s)	TCLo	NDA	NDA	NDA
GHS Properties				Classification	1			
Acute toxicity				EU/CLP • Clas OSHA HCS 20		eria not met cation criteria not	met	
Aspiration Hazard				EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met				
Carcinogenicity				EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met				
Germ Cell Mutagenicity				EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met				
Skin corrosion/Irritation				EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met				

Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met			
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met			
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met			
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met			
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met			
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met			

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected. Overexposure to oxygen may cause hyperoxia leading to oxygen toxicity.
- Chronic (Delayed) No data available

Skin

Acute (Immediate)

- Chronic (Delayed)
- Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.
- No data available

Eye

Acute (Immediate)

- Chronic (Delayed)
- Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.

Ingestion

Acute (Immediate)

- Chronic (Delayed)
- Ingestion is not anticipated to be a likely route of exposure to this product.
- No data available

No data available

Section 12 - Ecological Information

12.1 Toxicity

. As an inert gas, this product would have no effect on aquatic life.

12.2 Persistence and degradability

. Oxygen occurs naturally in the atmosphere. The gas will be dissipated rapidly in well ventilated areas.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

Material data lacking.

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment has not been conducted for this material.

12.6 Other adverse effects

No studies have been found.

Section 13 - Disposal Considerations

13.1 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	UN1073	Oxygen, refrigerated liquid (cryogenic liquid)	2.2	NDA	NDA
TDG	UN1073	OXYGEN, REFRIGERATED LIQUID	2.2	NDA	NDA
IMO/IMDG	UN1073	OXYGEN, REFRIGERATED LIQUID	2.2	NDA	NDA
IATA/ICAO	UN1073	Oxygen, refrigerated liquid	2.2	NDA	NDA

- 14.6 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.
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not relevant.

Section 15 - Regulatory Information

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

SARA Hazard Classifications • Pressure(Sudden Release of)

State Right To Know						
Component	CAS	MA	NJ	PA		
Oxygen	NDA	No	No	No		
Maximum Impurities	NDA	No	No	No		

Inventory							
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS	
Oxygen	NDA	No	No	No	No	No	
Maximum Impurities	NDA	No	No	No	No	No	

Inventory (Con't.)							
Component	CAS	Japan ENCS	Korea KECL	TSCA			
Oxygen	NDA	No	No	No			
Maximum Impurities	NDA	No	No	No			

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

Oxygen 7782-44-7 > 99.5% Not Listed

Australia - High Volume Industrial Chemicals List

Oxygen 7782-44-7 > 99.5% Not Listed

Australia - List of Designated Hazardous Substances - Classification

Oxygen 7782-44-7 > 99.5% O R8

Environment

Australia - National Pollutant Inventory (NPI) Substance List

Oxygen 7782-44-7 > 99.5% Not Listed

Australia - Ozone Protection Act - Scheduled Substances

Oxygen 7782-44-7 > 99.5% Not Listed

Australia - Priority Existing Chemical Program

Oxygen 7782-44-7 > 99.5% Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

Oxygen 7782-44-7 > 99.5% A, C

Canada - WHMIS - Ingredient Disclosure List

Oxygen 7782-44-7 > 99.5% Not Listed

Environment

Canada - CEPA - Priority Substances List

Oxygen 7782-44-7 > 99.5% Not Listed

China

Environment

China - Ozone Depleting Substances - First Schedule

Oxygen 7782-44-7 > 99.5% Not Listed

China - Ozone Depleting Substances - Second Schedule

Oxygen 7782-44-7 > 99.5% Not Listed

China - Ozone Depleting Substances - Third Schedule

• Oxygen 7782-44-7 > 99.5% Not Listed

Other

China - Annex I & II - Controlled Chemicals Lists

Oxygen 7782-44-7 > 99.5% Not Listed

China - Dangerous Goods List

• Oxygen 7782-44-7 > 99.5% UN1072; UN1073

China - Export Control List - Part I Chemicals

Oxygen 7782-44-7 > 99.5% Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Oxygen 7782-44-7 > 99.5% O; R8

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Oxygen 7782-44-7 > 99.5% Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Oxygen 7782-44-7 > 99.5% O R:8 S:(2)-17

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Oxygen 7782-44-7 > 99.5% Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Oxygen 7782-44-7 > 99.5% S:(2)-17

Germany

Environment[®]

Germany - TA Luft - Types and Classes

Oxygen 7782-44-7 > 99.5% Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Oxygen 7782-44-7 > 99.5% ID Number 743, not considered hazardous to water

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Oxygen 7782-44-7 > 99.5% Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Oxygen 7782-44-7 > 99.5% Not Listed

Other

Germany - Specifically Regulated Chemicals in TRGS

Oxygen 7782-44-7 > 99.5% Not Listed

Mexico

Other

Mexico - Hazard Classifications

• Oxygen 7782-44-7 > 99.5% Hazard Class = 2.2 (5.1) UN1072; Hazard Class = 2.2 (5.1) UN1073

Mexico - Regulated Substances

• Oxygen 7782-44-7 > 99.5% UN1072; UN1073

Portugal

Other

Portugal - Prohibited Substances

Oxygen 7782-44-7 > 99.5% Not Listed

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air

Oxygen 7782-44-7 > 99.5% Not Listed

United Kingdom - Substances Contained in Dangerous Substances or Preparations

Oxygen 7782-44-7 > 99.5% Not Listed

Other

United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review

• Oxygen 7782-44-7 > 99.5% Not Listed

United Kingdom - The Red List - Dangerous Substances in Water

Oxygen 7782-44-7 > 99.5% Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. OSHA Specifically Regulated Chemicals
- Oxygen 7782-44-7 > 99.5% Not Listed

Environment

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

- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. CERCLA/SARA Hazardous Substances and their Reportable Quantities
- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. CERCLA/SARA Section 302 Extremely Hazardous Substances EPCRA RQs
- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. CERCLA/SARA Section 302 Extremely Hazardous Substances TPQs
- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. CERCLA/SARA Section 313 Emission Reporting
- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. EPA Designated Generic Categories Warfarin and Salts
- Oxygen 7782-44-7 > 99.5% Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

- Oxygen 7782-44-7 > 99.5% Not Listed
- U.S. California Proposition 65 Developmental Toxicity

Oxygen 7782-44-7 > 99.5% Not Listed

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

Oxygen 7782-44-7 > 99.5% Not Listed

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

Oxygen 7782-44-7 > 99.5% Not Listed

United States - Pennsylvania

Labor

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

Oxygen 7782-44-7 > 99.5% Not Listed

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

Oxygen 7782-44-7 > 99.5% Not Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date Preparation Date

Disclaimer/Statement of Liability

- 19/February/2013
- 19/February/2013
- 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.