Safety Data Sheet



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

1.1 Product identifier

• Helium (1 - 49%), Oxygen (23.501 - 49%), Nitrogen (Balance)

Product Code

• M-45412/E-1

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

Relevant identified use(s) • Please provide product use.

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 sds@airliquide.com

Telephone (Technical) • 713-896-2896 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 Regulation (EC) No 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 Compressed Gas - H280

DSD/DPD • Oxidizing (O)

R8

2.2 Label Elements

CLP

DANGER





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

H280 - Contains gas under pressure; may explode if heated

Precautionary statements

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

P244 - Keep reduction valves free from grease and oil.

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

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

DSD/DPD



dangerous.

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

2.3 Other Hazards

 According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD • According to European Directive 1999/45/EC this preparation is considered

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 Compressed Gas - H280

2.2 Label elements
OSHA HCS 2012

DANGER





Hazard statements • May cause or intensify fire; oxidizer - H270 Contains gas under pressure; may explode if heated - H280

Precautionary statements

Prevention • Keep/Store away from clothing and other combustible materials. - P220 Keep reduction valves free from grease and oil. - P244

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

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

2.3 Other hazards

 OSHA HCS 2012
 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

• Compressed Gas - A Oxidizing - C

2.2 Label elements

WHMIS





 Compressed Gas - A Oxidizing - C

2.3 Other hazards WHMIS

 In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information





Section 3 - Composition/Information on Ingredients

3.1 Substances

 Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	Classifications According to Regulation/Directive		
CAS:7782-44-7 Oxygen EC Number:231-956-9		23.501% TO 49%	EU DSD/DPD: Annex I - O; R8 EU CLP: Annex VI - Ox. Gas 1 H270; Press. Gas - Comp., H280		
7.0	EU Index:008-001-00-8		OSHA HCS 2012: Ox. Gas 1; Press Gas Comp.		
Helium	CAS:7440-59-7 EINECS:231-168-5	1% TO 49%	EU DSD/DPD: Not Classified EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.		
Nitrogen	CAS:7727-37-9 EINECS:231-783-9	Balance	EU DSD/DPD: Not Classified EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.		

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

 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. Hold eye open and rinse slowly and gently with water for 15-20

Ingestion

minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention immediately if symptoms occur.

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.

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.

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 possible.

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 directions.

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

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Stop leak if you can do it without risk.

Paret direct water at a rill are accurate of leaves.

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 Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

 Use only with adequate ventilation. Ventilate closed spaces before entering. 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.

Exposure Control Notations

Portugal

Nitrogen (7727-37-9): Simple Asphyxiants: (Simple Asphyxiant)
 Helium (7440-59-7): Simple Asphyxiants: (Simple Asphyxiant)

Ireland

Nitrogen (7727-37-9): Simple Asphyxiants: (Asphyxiant)
 Helium (7440-59-7): Simple Asphyxiants: (Asphyxiant)

Spain

Nitrogen (7727-37-9): Simple Asphyxiants: (simple asphyxiant)
 Helium (7440-59-7): Simple Asphyxiants: (simple asphyxiant)

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

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face Skin/Body Wear safety glasses.

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 gas with no odor.
Color	Colorless	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	-183 C(-297.4 F)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	рН	Not relevant
Specific Gravity/Relative Density	Data lacking	Water Solubility	4.89 cm3/100 cm3
Viscosity	Not relevant	Explosive Properties	Data lacking
Oxidizing Properties:	Oxidizing gas.		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	0.92 Air=1 @ 25 C
Evaporation Rate	Data lacking		
Flammability	•	•	
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental	-	•	-
Octanol/Water Partition coefficient	Not relevant		

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.

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10.3 Possibility of hazardous reactions

• Hazardous polymerization will not occur.

10.4 Conditions to avoid

Excess heat, sparks, open flame.

10.5 Incompatible materials

 Reacts violently with phosphine, hydrazine, ethers, alcohols, hydrogen sulfide, and hydrocarbons.

10.6 Hazardous decomposition products

None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

ı	Components						
	Oxygen (23.501%	7782-	Reproductive: Inhalation-Rat TCLo • 10 pph 9 Hour(s)(22D preg); Reproductive Effects:Specific Developmental				
	TO 49%)	44-7	Abnormalities:Respiratory system; Reproductive Effects:Effects on Newborn:Physical				

GHS Properties	Classification
Acute toxicity	EU/CLP Classification criteria not met OSHA HCS 2012 Classification 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.

Chronic (Delayed)

Skin

Acute (Immediate)

Chronic (Delayed)

Eye

Acute (Immediate)

Chronic (Delayed)

Ingestion

Acute (Immediate)

Chronic (Delayed)

Key to abbreviations TC = Toxic Concentration No data available

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

No data available

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

No data available

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

No data available

Section 12 - Ecological Information

12.1 Toxicity

Material data lacking.

12.2 Persistence and degradability

Material data lacking.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

Material data lacking.

12.5 Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted.

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	UN3156	Compressed gas, oxidizing, n.o.s. (Oxygen, Nitrogen)	2.2,5.1	NDA	NDA

TDG	UN3156 COMPRESSED GAS, OXIDIZING, N.O.S. (Oxygen, Nitrogen)		2.2,5.1	NDA	NDA
IMO/IMDG UN3156 COMPRESSED GAS, OXIDIZING, N.O.S. (Oxygen, Nitrogen)		2.2,5.1	NDA	NDA	
IATA/ICAO UN3156 Compressed gas, oxidizing, n.o.s. (Oxygen, Nitrogen)		2.2,5.1	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), Fire

State Right To Know					
Component	CAS	MA	NJ	PA	
Helium	7440-59-7	Yes	Yes	Yes	
Nitrogen	7727-37-9	Yes	Yes	Yes	
Oxygen	7782-44-7	Yes	Yes	Yes	

	Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS	
Helium	7440-59-7	Yes	No	Yes	Yes	No	
Nitrogen	7727-37-9	Yes	No	Yes	Yes	No	
Oxygen	7782-44-7	Yes	No	Yes	Yes	No	
			Inventory (Co	า't.)			
Component			CAS	TS	CA		
Helium			7440-59-7 Yes				
Nitrogen			7727-37-9 Yes		es		
Oxygen		778	32-44-7	Y	es		

Canada

Canada - WHMIS - Classifications of Substances		
Oxygen	7782-44-7	A, C
 Nitrogen 	7727-37-9	A
• Helium	7440-59-7	A
Canada - WHMIS - Ingredient Disclosure List		
 Oxygen 	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed

• Helium	7440-59-7	Not Listed
Invironment		
Canada - CEPA - Priority Substances List		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium		
• Hellum	7440-59-7	Not Listed
nina		
nvironment		
China - Ozone Depleting Substances - First Schedule		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
China - Ozone Depleting Substances - Second Schedule		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
China - Ozone Depleting Substances - Third Schedule		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
M		
Other China - Annex I & II - Controlled Chemicals Lists		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
China Dangaraya Caada Liat		
China - Dangerous Goods List		(acres record or refrigerate
• Oxygen	7782-44-7	(compressed or refrigerate liquid)
Nitrogen	7727-37-9	(compressed or refrigerate liquid)
Helium	7440-59-7	(compressed or refrigerate
	1 770-00-1	liquid)
China - Export Control List - Part I Chemicals		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
urope		
Other EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification		
• Oxygen	7782-44-7	O; R8
	7727-37-9	Not Listed
Nitrogen Halium		
• Helium	7440-59-7	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits		
• Oxygen	7782-44-7	Not Listed

Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Lab	elling	
• Oxygen	7782-44-7	O R:8 S:(2)-17
 Nitrogen 	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Not	es - Substances and Preparations	
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Saf	ety Phrases	
• Oxygen	7782-44-7	S:(2)-17
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed

Germany

Environment TALLuft Types and Classes		
Germany - TA Luft - Types and Classes Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
Oxygen	7782-44-7	ID Number 743, not considered
<i>-</i> , , , ,		hazardous to water
		ID Number 1351, not
Nitrogen	7727-37-9	considered hazardous to
		water
Helium	7440-59-7	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed

ner Germany - Specifically Regulated Chemicals in TRGS		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed

Portugal

Other		
Portugal - Prohibited Substances		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed

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Helium	7440-59-7	Not Listed
nited Kingdom		
nvironment		
United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for		
• Oxygen	7782-44-7	Not Listed
• Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
ther		
United Kingdom - Workplace Exposure Limits (WELs) - Substances	in Review	
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
United Kingdom - List of Dangerous Substances in Water		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
nited States		
abor	nicals	
U.S OSHA - Process Safety Management - Highly Hazardous Chen	7782-44-7	Not Listed
Oxygen Nitrogen	7727-37-9	Not Listed Not Listed
• Nitrogen		
Helium	7440-59-7	Not Listed
U.S OSHA - Specifically Regulated Chemicals		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
nvironment		
U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
• Oxygen	7782-44-7	Not Listed
• Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable G	Quantities	
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantitie	s	
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances		
	7700 44 7	Not Listed
Oxygen	7782-44-7	NOT LISTER
OxygenNitrogenHelium	7782-44-7 7727-37-9 7440-59-7	Not Listed

Oxygen	7782-44-7	Not Listed
7.5		
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
J.S CERCLA/SARA - Section 313 - Emission Reporting		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
J.S CERCLA/SARA - Section 313 - PBT Chemical Listing	g	
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed

United States - California

vironment		
U.S California - Proposition 65 - Carcinogens List		
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
U.S California - Proposition 65 - Developmental Toxicity		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
U.S California - Proposition 65 - Maximum Allowable Dose Level	s (MADL)	
Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
U.S California - Proposition 65 - No Significant Risk Levels (NSRI)	
• Oxygen	7782-44-7	Not Listed
• Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Female		
Oxygen	7782-44-7	Not Listed
• Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Male		
• Oxygen	7782-44-7	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed

United States - Pennsylvania

Labor U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List		
• Oxygen	7782-44-7	Not Listed
Nitrogen	7727-37-9	Not Listed
Helium	7440-59-7	Not Listed

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

 • Oxygen
 7782-44-7
 Not Listed

 • Nitrogen
 7727-37-9
 Not Listed

 • Helium
 7440-59-7
 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

- 05/September/2014
- 05/September/2014
- 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

Liability