

Safety Data Sheet



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

1.1 Product identifier

- Product Name** • **Oxygen (19.5 - 23.5%), Enflurane (0.1 - 10%), Nitrogen (Balance)**
Product Code • MSDS No. 90071

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

- Relevant identified use(s)** • Calibration Gas

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 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** • Compressed Gas - H280
DSD/DPD • Classification criteria not met

2.2 Label Elements

CLP

WARNING



Hazard statements • H280 - Contains gas under pressure; may explode if heated

Precautionary statements

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

DSD/DPD

Risk phrases ● No label element(s) required

2.3 Other Hazards

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

DSD/DPD ● This preparation is not considered dangerous according to European Directive 1999/45/EC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 ● Compressed Gas - H280

2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements ● Contains gas under pressure; may explode if heated - H280

Precautionary statements

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

WHMIS ● Compressed Gas - A

2.2 Label elements

WHMIS



● Compressed Gas - A

2.3 Other hazards

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

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

Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nitrogen	CAS:7727-37-9 EINECS:231-783-9	66.5% TO 80.4%	NDA	EU DSD/DPD: Not Classified - Classification criteria not met EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Self Classified - Press. Gas - Comp.; Simp. Asphyx.	Balance
Oxygen	CAS:7782-44-7 EC Number:231-956-9	19.5% TO 23.5%	NDA	EU DSD/DPD: Annex I - O; R8 EU CLP: Annex VI - Ox. Gas 1, H270; Press. Gas. - Comp., H280 OSHA HCS 2012: Ox. Gas 1; Press. Gas - Comp.	NDA
Enflurane	CAS:13838-16-9 EINECS:237-553-4	0.1% TO 10%	Ingestion/Oral-Rat LD50 • 5450 µL/kg Inhalation-Rat LC50 • 14000 ppm 3 Hour(s)	EU DSD/DPD: Self Classified - R67 EU CLP: Self Classified - STOT SE 3, H336 OSHA HCS 2012: STOT SE 3: Narc.	NDA

See Section 16 for full text of H-statements and R-phrases.

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. If irritation develops and persists, get medical attention. If contact with material occurs flush eyes with water.

Ingestion

- As this product is a gas, refer to the inhalation section. 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 over-

exposure to this gas mixture must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physician or other health professional with victim(s).

Section 5 - 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.
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

- No special environmental precautions necessary.

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 Considerations.

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						
	Result	ACGIH	Canada Ontario	Canada Quebec	Germany DFG	Germany TRGS
Enflurane (13838-16-9)	TWAs	75 ppm TWA	2 ppm TWA; 16 mg/m ³ TWA	75 ppm TWAEV; 566 mg/m ³ TWAEV	Not established	20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 8); 150 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 8)
	Ceilings	Not established	Not established	Not established	160 ppm Peak; 1200 mg/m ³ Peak	Not established
	MAKs	Not established	Not established	Not established	20 ppm TWA MAK; 150 mg/m ³ TWA MAK	Not established

Exposure Limits/Guidelines (Con't.)			
	Result	NIOSH	Singapore
Enflurane (13838-16-9)	TWAs	Not established	75 ppm PEL; 566 mg/m ³ PEL
	Ceilings	2 ppm Ceiling (60 min exposure to waste anesthetic gas); 15.1 mg/m ³ Ceiling (60 min exposure to waste anesthetic gas)	Not established

Exposure Control Notations

Germany DFG

- Enflurane (13838-16-9): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

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.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. 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. Have available emergency self-contained breathing apparatus or full-face airline respirator when using this chemical.

Eye/Face

- Wear safety glasses.

Skin/Body

- Wear leather gloves when handling cylinders.

Environmental Exposure Controls

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

Key to abbreviations

MSHA = Mine Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

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

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Gas	Appearance/Description	Enflurane has a sweet odor.
Color	Data lacking	Odor	Sweet odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	-194.5 C(-318.1 F) For Air	Melting Point	-213.4 C(-352.12 F) For Air
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Density	1.202 kg/m ³ For Air
			0.0002 Poise (P, Ps) or dyne-

Water Solubility	Negligible < 0.1 %	Viscosity	second/cm2 @ 0 C(32 F) For Air
Explosive Properties	Not relevant.	Oxidizing Properties:	Not an oxidizer.
Volatility			
Vapor Pressure	Data lacking	Vapor Density	1 Air=1 For Air
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	Data lacking		

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

- Storage in poorly ventilated areas. Storage near a heat source.

10.5 Incompatible materials

- None

10.6 Hazardous decomposition products

- None

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Oxygen (19.5% TO 23.5%)	7782-44-7	Reproductive: ihl-rat TCLo:10 pph/9H (22D preg)
Enflurane (0.1% TO 10%)	13838-16-9	Acute Toxicity: orl-rat LD50:5450 uL/kg; ihl-rat LC50:14000 ppm/3H; Irritation: eye-rbt 100 mg MOD
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

Route(s) of entry/exposure

- Inhalation

Potential Health Effects

Inhalation

Acute (Immediate)

- Based upon data, enflurane may cause respiratory irritation. In high concentrations, enflurane is an anesthetic gas with narcotic effects.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Based upon data, enflurane may cause skin irritation.

Chronic (Delayed)

- No data available

Eye

Acute (Immediate)

- Based upon data, enflurane may cause eye irritation.

Chronic (Delayed)

- No data available

Ingestion

Acute (Immediate)

- Ingestion is not considered a potential route of exposure due to the physical form of this product.

Chronic (Delayed)

- Ingestion is not considered a potential route of exposure due to the physical form of this product.

Other

Chronic (Delayed)

- Mild, moderate, and severe liver injury, including hepatic failure, may rarely follow anesthesia with enflurane.

Carcinogenic Effects

- The components of this gas mixture are not found on the following lists: FEDERAL OSHA Z LIST, NTP and IARC; therefore, they are not considered to be, nor suspected to be, cancer-causing agents by these agencies.

Reproductive Effects

- Enflurane is classified as FDA pregnancy category B. No fetal abnormalities have been reported in humans exposed to enflurane.

Key to abbreviations

TC = Toxic Concentration
 LC = Lethal Concentration
 LD = Lethal Dose
 MOD = Moderate

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

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

12.6 Other adverse effects

- Material data lacking.

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	UN1956	Compressed gas, n.o.s. (Nitrogen, Oxygen)	2.2	NDA	NDA
TDG	UN1956	COMPRESSED GAS, N.O.S. (Nitrogen, Oxygen)	2.2	NDA	NDA
IMO/IMDG	UN1956	COMPRESSED GAS, N.O.S. (Nitrogen, Oxygen)	2.2	NDA	NDA
IATA/ICAO	UN1956	Compressed gas, n.o.s. (Nitrogen, Oxygen)	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
Nitrogen	7727-37-9	Yes	Yes	Yes
Oxygen	7782-44-7	Yes	Yes	Yes
Enflurane	13838-16-9	Yes	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Nitrogen	7727-37-9	Yes	No	Yes	No	Yes
Oxygen	7782-44-7	Yes	No	Yes	No	Yes
Enflurane	13838-16-9	No	No	Yes	No	No

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Oxygen 7782-44-7 19.5% TO 23.5% A, C
- Nitrogen 7727-37-9 66.5% TO 80.4% A
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

Canada - WHMIS - Ingredient Disclosure List

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

Environment

Canada - CEPA - Priority Substances List

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

Europe

Other

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

- Oxygen 7782-44-7 19.5% TO 23.5% O; R8
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% O R:8 S:(2)-17
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% S:(2)-17
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

United States

Labor

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed

- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

Environment

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed

- Enflurane 13838-16-9 0.1% TO 10% Not Listed

United States - California

Environment

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

United States - Pennsylvania

Labor

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

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

- Oxygen 7782-44-7 19.5% TO 23.5% Not Listed
- Nitrogen 7727-37-9 66.5% TO 80.4% Not Listed
- Enflurane 13838-16-9 0.1% TO 10% Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.
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Section 16 - Other Information

Relevant Phrases (code & full text)

- H270 - May cause or intensify fire; oxidizer
- H336 - May cause drowsiness or dizziness
- R8 - Contact with combustible material may cause fire.
- R67 - Vapours may cause drowsiness and dizziness.

Last Revision Date

- 26/November/2012

Preparation Date

- 26/November/2012

Disclaimer/Statement of Liability

- To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations

NDA = No Data Available
