

Safety Data Sheet



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

1.1 Product identifier

Product Name	• Neon
CAS Number	• 7440-01-9
Product Code	• 20131

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

Relevant identified use(s)	• Lighting
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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	• Compressed Gas - H280
DSD/DPD	• Not classified

2.2 Label Elements

CLP

WARNING



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**
- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. This product is not considered dangerous under 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**
- Compressed Gas - H280
Simple Asphyxiant

2.2 Label elements

OSHA HCS 2012

WARNING

- Hazard statements** ● Contains gas under pressure; may explode if heated - H280
May displace oxygen and cause rapid suffocation.

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**
- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. 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

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Neon	CAS:7440-01-9 EINECS:231-110-9	100%	NDA	EU DSD/DPD: Not Classified - Data lacking EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.	NDA

3.2 Mixtures

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

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 ON SKIN: Wash with plenty of soap and water. Remove clothing and wash thoroughly before use. If irritation develops and persists, get medical attention.

Eye

- If contact with eyes directly, flush with gently flowing fresh water thoroughly. If easy to do, remove contact lenses, if worn. If eye irritation persists: Get medical advice/attention.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Get medical attention if symptoms occur.

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.
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

- No data available

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

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

- No data available

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	None		
General Properties			
Boiling Point	-246 C(-410.8 F)	Melting Point	-249 C(-416.2 F)
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	14 cm ³ /1 kg water
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	0.696 Air=1
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

- No data available

10.4 Conditions to avoid

- No data available

10.5 Incompatible materials

- No data available

10.6 Hazardous decomposition products

- No data available

Section 11 - Toxicological Information

11.1 Information on toxicological effects

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)** • This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

Section 12 - Ecological Information

12.1 Toxicity

- No data available

12.2 Persistence and degradability

- No data available

12.3 Bioaccumulative potential

- No data available

12.4 Mobility in Soil

- No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

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.

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	UN1065	Neon, compressed	2.2	NDA	NDA
TDG	UN1065	NEON, COMPRESSED	2.2	NDA	NDA
IMO/IMDG	UN1065	NEON, COMPRESSED	2.2	NDA	NDA
IATA/ICAO	UN1065	Neon, compressed	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)

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

- 03/October/2014

Preparation Date

- 03/October/2014

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