

Safety Data Sheet

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

Product Name	• Propylene
Synonyms	• Methylethylene; Propene
CAS Number	• 115-07-1
Product Code	• 20146
EC Number	• 204-062-1
Molecular Formula	• :C 3:H 6:

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

Relevant identified use(s)	• Semiconductor Uses
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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	• Flammable Gases 1 - H220 Liquefied Gas - H280
DSD/DPD	• Extremely Flammable (F+) R12

2.2 Label Elements

CLP

DANGER



- Hazard statements**
- H220 - Extremely flammable gas
 - H280 - Contains gas under pressure; may explode if heated

Precautionary statements

- Prevention**
- P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
- Response**
- P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 - P381 - Eliminate all ignition sources if safe to do so.
- Storage/Disposal**
- P403 - Store in a well-ventilated place.

DSD/DPD



- Risk phrases**
- R12 - Extremely flammable.
- Safety phrases**
- S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.

2.3 Other Hazards

- CLP**
- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces.
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**
- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces.
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**
- Flammable Gases 1 - H220
 - Liquefied Gas - H280
 - Germ Cell Mutagenicity 2 - H341
 - Simple Asphyxiant
 - Hazards Not Otherwise Classified - Health Hazard - Frostbite

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Extremely flammable gas - H220
 - Contains gas under pressure; may explode if heated - H280
 - Suspected of causing genetic defects. - H341
 - May displace oxygen and cause rapid suffocation.
 - Hazards Not Otherwise Classified - Health Hazards - Frostbite

Precautionary statements

- Prevention**
- Obtain special instructions before use. - P201
 - Do not handle until all safety precautions have been read and understood. - P202

- Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
- Response**
- IF exposed or concerned: Get medical advice/attention. - P308+P313
 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely. - P377
 - Eliminate all ignition sources if safe to do so. - P381
- Storage/Disposal**
- Store in a well-ventilated place. - P403
 - Store locked up. - P405
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

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
- Flammable Gases - B1
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Compressed Gas - A
- Flammable Gases - B1
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

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

Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Propylene	CAS:115-07-1 EC Number:204-062-1	100%	NDA	EU DSD/DPD: Annex I - F+; R12 EU CLP: Annex VI - Flam. Gas 1, H220; Press. Gas - Liq., H280 OSHA HCS 2012: Flam. Gas 1; Press. Gas - Liq.; Muta. 2; Simp. Asphyx.; HNOOC (Health Effects) - Frostbite

3.2 Mixtures

- Material does not meet the criteria of a mixture.

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. 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.

Skin

- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. 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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. 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 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**
- 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**
- EXTREMELY FLAMMABLE
Will form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.

Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.

Containers may explode when heated.

Ruptured cylinders may rocket.

Can react violently with oxidizing material.

Hazardous Combustion Products

- Toxic carbon monoxide may be given off during combustion.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).
DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED
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 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.
FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.
FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
FIRE INVOLVING TANKS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
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.
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: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

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. Use protective clothing to prevent possible cold burns or frostbite. Do not walk through spilled material. Ventilate the area before entry.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Stop leak if you can do it without risk. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. LARGE SPILL: Consider initial downwind evacuation for at least 800 meters (1/2 mile)

6.2 Environmental precautions

- Prevent spreading of vapors through sewers, ventilation systems and confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- All equipment used when handling the product must be grounded.
Stop leak if you can do it without risk.
If possible, turn leaking containers so that gas escapes rather than liquid.
Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.
Do not direct water at spill or source of leak.
Isolate area until gas has dispersed.

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

- Keep away from heat and ignition sources – No Smoking. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Use only non-sparking tools. Use only with adequate ventilation. Ventilate closed spaces before entering. Wear appropriate personal protective equipment, avoid direct contact. 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. Use explosion-proof - electrical, ventilating and/or lighting equipment. 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**

- Cylinders should be stored in dry, well-ventilated areas away from sources of heat and ignition. Do not allow area where cylinders are stored to exceed 52C (125F). Cylinders must be protected from the environment, and preferably kept at room temperature approximately 21C (70F). Protect cylinders against physical damage. Cylinders should be firmly secured to prevent falling or being knocked-over. Store locked up.

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	Ireland	Israel	Portugal
Propylene (115-07-1)	TWAs	500 ppm TWA	500 ppm TWA	500 ppm TWA (gaseous)	500 ppm TWA	500 ppm TWA [VLE-MP]
Exposure Limits/Guidelines (Con't.)						
	Result	Spain		Sweden		
Propylene (115-07-1)	TWAs	500 ppm TWA [VLA-ED]		500 ppm LLV; 900 mg/m3 LLV		

Exposure Control Notations**Portugal**

- Propylene (115-07-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Ireland

- Propylene (115-07-1): **Simple Asphyxiants:** (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**

- 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.

Eye/Face

- Wear safety glasses.

Skin/Body

- Wear leather gloves when handling cylinders.

Environmental Exposure

- Follow best practice for site management and disposal of waste. Controls should be

Controls

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

Key to abbreviations

LLV = Limit Level Value is the exposure limit for 8-hour work day

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

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	Not relevant		
General Properties			
Boiling Point	-48 C(-54.4 F)	Melting Point	-185.3 C(-301.54 F)
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.514 Water=1	Water Solubility	0.434 % @ 0 C(32 F)
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	10 atm @ 20 C(68 F)	Vapor Density	1.49 Air=1
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	11.1 %
LEL	2 %	Autoignition	455 C(851 F)
Flammability (solid, gas)	Flammable gas.		

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

- Excess heat, sparks, open flame. Incompatible materials.

10.5 Incompatible materials

- Oxidizers, it reacts violently with NO₂, N₂O₄, N₂O, mineral acids, halogenated compounds, and molten salts.

10.6 Hazardous decomposition products

- Carbon monoxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Propylene (100%)	115-07-1	Mutagen: Inhalation-Rat • 200 ppm 4 Week(s) 6 Hour(s); Tumorigen / Carcinogen: Inhalation-Rat TClO • 128750 mg/kg 103 Week(s)-Continuous; <i>Tumorigenic:Neoplastic by RTECS criteria; Sense Organs and Special Senses:Olfaction:Tumors</i>

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 • Germ Cell Mutagenicity 2
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)

- If this material is released in a small, poorly ventilated area (i.e. an enclosed or confined space), an oxygen-deficient environment may occur. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of over-exposure, death may occur. The following effects associated with decreased levels of oxygen: increase in breathing and pulse rate, emotional upset, abnormal fatigue, nausea, vomiting, collapse, loss of consciousness, convulsive movements, respiratory collapse and death. Contact with rapidly expanding gas may cause burns or frostbite.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Contact with rapidly expanding gas may cause burns or frostbite.

Chronic (Delayed)

- No data available

Eye

- Acute (Immediate)**
 - Contact with rapidly expanding gas may cause burns or frostbite.
- Chronic (Delayed)**
 - No data available

Ingestion

- Acute (Immediate)**
 - Contact with rapidly expanding gas may cause burns or frostbite.
- Chronic (Delayed)**
 - No data available

Mutagenic Effects

- Studies of propylene inhalation in animals has produced positive mutagenicity tests indicating propylene has the potential to cause mutagenic effects in humans.

Key to abbreviations

TC = Toxic Concentration

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	UN1077	Propylene	2.1	NDA	NDA
TDG	UN1077	PROPYLENE	2.1	NDA	NDA
IMO/IMDG	UN1077	PROPYLENE	2.1	NDA	NDA
IATA/ICAO	UN1077	Propylene	2.1	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.

14.8 Other information

- This material is "Forbidden" transportation via Passenger Aircraft/Rail.
- DOT** • Special Provision 19 For domestic transportation only, the identification number "UN1075" may be used in place of the identification number specified in column (4) of the § 172.101 table. The identification number used must be consistent on package markings, shipping papers and emergency response information.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Acute, Fire, Pressure(Sudden Release of)

State Right To Know				
Component	CAS	MA	NJ	PA
Propylene	115-07-1	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Propylene	115-07-1	Yes	No	Yes	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
Propylene	115-07-1	Yes

Canada**Labor****Canada - WHMIS - Classifications of Substances**

- Propylene 115-07-1 A, B1

Canada - WHMIS - Ingredient Disclosure List

- Propylene 115-07-1 Not Listed

Environment**Canada - CEPA - Priority Substances List**

- Propylene 115-07-1 Not Listed

China**Environment****China - Ozone Depleting Substances - First Schedule**

- Propylene 115-07-1 Not Listed

China - Ozone Depleting Substances - Second Schedule

• Propylene	115-07-1	Not Listed
China - Ozone Depleting Substances - Third Schedule		
• Propylene	115-07-1	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification		
• Propylene	115-07-1	F+; R12
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits		
• Propylene	115-07-1	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling		
• Propylene	115-07-1	F+ R:12 S:(2)-9-16-33
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations		
• Propylene	115-07-1	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
• Propylene	115-07-1	S:(2)-9-16-33

Germany

Environment

Germany - TA Luft - Types and Classes		
• Propylene	115-07-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Propylene	115-07-1	ID Number 816, not considered hazardous to water
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Propylene	115-07-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		
• Propylene	115-07-1	Not Listed

Other

Germany - Specifically Regulated Chemicals in TRGS		
• Propylene	115-07-1	Not Listed

Portugal

Other

Portugal - Prohibited Substances		
• Propylene	115-07-1	Not Listed

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air		
• Propylene	115-07-1	Not Listed

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

• Propylene	115-07-1	Not Listed
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United Kingdom - List of Dangerous Substances in Water

• Propylene	115-07-1	Not Listed
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United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Propylene	115-07-1	Not Listed
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U.S. - OSHA - Specifically Regulated Chemicals

• Propylene	115-07-1	Not Listed
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Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Propylene	115-07-1	Not Listed
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Propylene	115-07-1	Not Listed
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Propylene	115-07-1	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Propylene	115-07-1	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Propylene	115-07-1	Not Listed
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Propylene	115-07-1	1.0 % de minimis concentration
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U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Propylene	115-07-1	Not Listed
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United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Propylene	115-07-1	Not Listed
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U.S. - California - Proposition 65 - Developmental Toxicity

• Propylene	115-07-1	Not Listed
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U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Propylene	115-07-1	Not Listed
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U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Propylene	115-07-1	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Propylene	115-07-1	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- Propylene

115-07-1

Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

- Propylene

115-07-1

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

- Propylene

115-07-1

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Last Revision Date**

- 17/October/2014

Preparation Date

- 17/October/2014

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