

## Safety Data Sheet



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

#### 1.1 Product identifier

- Product Name** • Methane (> 10.0-50.0%) in Argon (Balance) or Methane (> 10.1-50.0%) in Helium (Balance) or Methane (> 14.3-50.0%) in Nitrogen (Balance)
- Product Code** • 60082

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

- Relevant identified use(s)** • Semiconductor Uses

#### 1.3 Details of the supplier of the safety data sheet

- Manufacturer** • Air Liquide  
2700 Post Oak Blvd.  
Houston, TX 77056  
United States  
www.us.airliquide.com  
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  
Compressed 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. 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. According to European Directive 1999/45/EC this material is considered dangerous.

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**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
  - Compressed Gas - H280
  - Simple Asphyxiant

**2.2 Label elements**

**OSHA HCS 2012**

**DANGER**



- Hazard statements**
- Extremely flammable gas - H220
  - Contains gas under pressure; may explode if heated - H280
  - May displace oxygen and cause rapid suffocation.

**Precautionary statements**

- Prevention**
- Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
- Response**
- 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

**2.3 Other hazards**

- OSHA HCS 2012**
- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

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**Canada**

According to WHMIS

## 2.1 Classification of the substance or mixture

### WHMIS

- Compressed Gas - A  
Flammable Gases - B1

## 2.2 Label elements

### WHMIS



- Compressed Gas - A  
Flammable Gases - B1

## 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).

## 2.4 Other information

### NFPA



## 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
Nitrogen	CAS:7727-37-9 EINECS:231-783-9	0% TO 90%	EU DSD/DPD: Not Classified EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.
Helium	CAS:7440-59-7 EINECS:231-168-5	0% TO 90%	EU DSD/DPD: Not Classified EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.
Argon	CAS:7440-37-1 EC Number:231-147-0	0% TO 90%	EU DSD/DPD: Not Classified EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.
Methane	CAS:74-82-8 EC Number:200-812-7 EU Index:601-001-00-4	10% TO 50%	EU DSD/DPD: Annex I - F+; R12 EU CLP: Annex VI - Flam. Gas 1, H220; Press. Gas - Comp., H280 OSHA HCS 2012: Flam. Gas 1; 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. If eye irritation persists: Get medical advice/attention.

#### Ingestion

- Ingestion is not considered a potential route of exposure.

### 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 CO<sub>2</sub>.  
**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.

- 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).  
**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.  
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

- Ventilate the area before entry. Do not walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

#### 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. LARGE SPILL: Consider initial downwind evacuation for at least 800 meters (1/2 mile) Keep unauthorized personnel away. Keep out of low areas. Stay upwind.

### 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. 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, ignition and direct sunlight. 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
Methane (74-82-8)	TWAs	1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	1000 ppm TWA	1000 ppm TWA	1000 ppm TWA (gas, listed under Aliphatic hydrocarbon gases: Alkane C1-4)	1000 ppm TWA [VLE-MP]
Exposure Limits/Guidelines (Con't.)						
	Result	Spain				
Methane (74-82-8)	TWAs	1000 ppm TWA [VLA-ED]				

### Exposure Control Notations

#### Portugal

- Helium (7440-59-7): **Simple Asphyxiants:** (Simple Asphyxiant)
- Argon (7440-37-1): **Simple Asphyxiants:** (Simple Asphyxiant)
- Nitrogen (7727-37-9): **Simple Asphyxiants:** (Simple Asphyxiant)

#### Ireland

- Methane (74-82-8): **Simple Asphyxiants:** (Asphyxiant)
- Helium (7440-59-7): **Simple Asphyxiants:** (Asphyxiant)
- Argon (7440-37-1): **Simple Asphyxiants:** (Asphyxiant)
- Nitrogen (7727-37-9): **Simple Asphyxiants:** (Asphyxiant)

#### Spain

- Helium (7440-59-7): **Simple Asphyxiants:** (simple asphyxiant)
- Argon (7440-37-1): **Simple Asphyxiants:** (simple asphyxiant)
- Nitrogen (7727-37-9): **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

- In case of insufficient ventilation, wear suitable respiratory equipment.

##### 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

ACGIH = American Conference of Governmental Industrial Hygiene

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 gas with a slight odor.
Color	Colorless	Odor	Mild
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	15 % Methane
LEL	5 % Methane	Autoignition	537 C(998.6 F) Methane
Flammability (solid, gas)	Flammable gas.		
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

- Excess heat, sparks, open flame.

### 10.5 Incompatible materials

- Methane is incompatible with strong oxidizers (i.e. chlorine, bromine pentafluoride, oxygen difluoride, and nitrogen trifluoride) Nitrogen reacts with Li, Nd, and Ti at high temperatures.

### 10.6 Hazardous decomposition products

- The components of this product do not decompose, per se, but may react with other compounds in the heat of a fire.

## 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. 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.

##### 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)

- Ingestion is not anticipated to be a likely route of exposure to this product.



**Chronic (Delayed)**

- 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	UN1954	Compressed gas, flammable, n.o.s. (Methane, Helium) or (Methane, Argon) or (Methane, Nitrogen)	2.1	NDA	NDA
TDG	UN1954	COMPRESSED GAS, FLAMMABLE, N.O.S. (Methane, Helium) or (Methane, Argon) or (Methane, Nitrogen)	2.1	NDA	NDA
IMO/IMDG	UN1954	COMPRESSED GAS, FLAMMABLE, N.O.S. (Methane, Helium) or (Methane, Argon) or (Methane, Nitrogen)	2.1	NDA	NDA
IATA/ICAO	UN1954	Compressed gas, flammable, n.o.s. (Methane, Helium) or (Methane, Argon) or (Methane, Nitrogen)	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.

## 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
Argon	7440-37-1	Yes	Yes	Yes
Helium	7440-59-7	Yes	Yes	Yes
Methane	74-82-8	Yes	Yes	Yes
Nitrogen	7727-37-9	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Argon	7440-37-1	Yes	No	Yes	Yes	No
Helium	7440-59-7	Yes	No	Yes	Yes	No
Methane	74-82-8	Yes	No	Yes	Yes	No
Nitrogen	7727-37-9	Yes	No	Yes	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
Argon	7440-37-1	Yes
Helium	7440-59-7	Yes
Methane	74-82-8	Yes
Nitrogen	7727-37-9	Yes

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• Argon	7440-37-1	A
• Nitrogen	7727-37-9	A
• Helium	7440-59-7	A
• Methane	74-82-8	A, B1

#### Canada - WHMIS - Ingredient Disclosure List

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

### Environment

#### Canada - CEPA - Priority Substances List

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

## China

### Environment

#### China - Ozone Depleting Substances - First Schedule

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

#### China - Ozone Depleting Substances - Second Schedule

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

#### China - Ozone Depleting Substances - Third Schedule

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

### Other

#### China - Annex I & II - Controlled Chemicals Lists

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

#### China - Dangerous Goods List

• Argon	7440-37-1	(compressed or refrigerated liquid)
• Nitrogen	7727-37-9	(compressed or refrigerated liquid)
• Helium	7440-59-7	(compressed or refrigerated liquid)
• Methane	74-82-8	(compressed or refrigerated liquid)

#### China - Export Control List - Part I Chemicals

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

## Europe

### Other

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed

• Helium	7440-59-7	Not Listed
• Methane	74-82-8	F+; R12
<b>EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits</b>		
• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed
<b>EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling</b>		
• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	F+ R:12 S:(2)-9-16-33
<b>EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations</b>		
• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed
<b>EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases</b>		
• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	S:(2)-9-16-33

## Germany

### Environment

#### Germany - TA Luft - Types and Classes

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

#### Germany - Water Classification (VwVwS) - Annex 1

• Argon	7440-37-1	ID Number 1348, not considered hazardous to water
• Nitrogen	7727-37-9	ID Number 1351, not considered hazardous to water
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	ID Number 1343, not considered hazardous to water

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

#### Germany - Water Classification (VwVwS) - Annex 3

• Argon	7440-37-1	Not Listed
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• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**Other****Germany - Specifically Regulated Chemicals in TRGS**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**Portugal****Other****Portugal - Prohibited Substances**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	10000 kg

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**United Kingdom - List of Dangerous Substances in Water**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**United States****Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed

• Methane	74-82-8	Not Listed
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**Environment****U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**United States - California****Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

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

• Argon	7440-37-1	Not Listed
• Nitrogen	7727-37-9	Not Listed
• Helium	7440-59-7	Not Listed
• Methane	74-82-8	Not Listed

**15.2 Chemical Safety Assessment**

- No Chemical Safety Assessment has been carried out.

**Section 16 - Other Information**

<b>Last Revision Date</b>	• 08/September/2014
<b>Preparation Date</b>	• 13/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

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