

Safety Data Sheet



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

1.1 Product identifier

- Product Name** • Isobutane (1 - 12,000 ppm), Air (Balance)
Product Code • M-22611/E-1

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 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 - 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 ● According to European Directive 1999/45/EC this preparation is not considered dangerous.

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).

2.4 Other information





Section 3 - Composition/Information on Ingredients

3.1 Substances

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

3.2 Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Isobutane	CAS:75-28-5 EC Number:200-857-2	1ppm TO 12000ppm	Inhalation-Rat LC50 • 658000 mg/m ³ 4 Hour(s)	EU DSD/DPD: EU CLP, Annex VI, Table 3.2: F+, R12 EU CLP: Annex VI - Flam. Gas 1, H220; Press. Gas - Comp, H280 OSHA HCS 2012: Flam. Gas 1; Press Gas
Air - compressed, atmospheric	CAS:132259-10-0	Balance	NDA	EU DSD/DPD: Not Classified - Criteria not met EU CLP: Self Classified: Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.

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. Get medical attention if symptoms occur. Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.

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.
Supports combustion.

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

- 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. 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	Germany DFG	Germany TRGS	Israel
Isobutane (75-28-5)	TWAs	Not established	800 ppm TWA (listed under Aliphatic hydrocarbon gases)	Not established	1000 ppm TWA AGW (exposure factor 4); 2400 mg/m ³ TWA AGW (exposure factor 4)	Not established
	STELs	1000 ppm STEL	Not established	Not established	Not established	1000 ppm STEL
	Ceilings	Not established	Not established	4000 ppm Peak (listed under Butane); 9600 mg/m ³ Peak (listed under Butane)	Not established	Not established
	MAKs	Not established	Not established	1000 ppm TWA MAK; 2400 mg/m ³ TWA MAK	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	NIOSH				
Isobutane (75-28-5)	TWAs	800 ppm TWA; 1900 mg/m ³ TWA				

Exposure Control Notations

Italy

•Isobutane (75-28-5): **Carcinogens:** (Category 1 Carcinogen (containing >= 0.1% Butadiene)) | **Mutagens:** (Category 2 Mutagen (containing >= 0.1% Butadiene))

Germany DFG

•Isobutane (75-28-5): **Pregnancy:** (classification not yet possible)

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.

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

OSHA = Occupational Safety and Health Administration

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

STEL = Short Term Exposure Limits are based on 15-minute exposures

NIOSH = National Institute of Occupational Safety and Health

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 sweet odor.
Color	Colorless	Odor	Sweet odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	-194.5 C(-318.1 F) Air	Melting Point	-213.4 C(-352.12 F) Air
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	1 to 1.01 Air=1
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
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

- Excess heat.

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**

Components		
Isobutane (1ppm TO 12000ppm)	75-28-5	Acute Toxicity: Inhalation-Rat LC50 • 658000 mg/m ³ 4 Hour(s)

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, Skin, Eye

Potential Health Effects

Inhalation

Acute (Immediate) ● Under normal conditions of use, no health effects are expected.

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

Key to abbreviations

LC = Lethal Concentration

Section 12 - Ecological Information

12.1 Toxicity

● This gas mixture does not present a hazard of toxicity to the environment.

12.2 Persistence and degradability

● Not relevant.

12.3 Bioaccumulative potential

● Not relevant.

12.4 Mobility in Soil

● Not relevant.

12.5 Results of PBT and vPvB assessment

● No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

● No adverse ecological effects are expected.

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. (Air, Isobutane)	2.2	NDA	NDA
TDG	UN1956	COMPRESSED GAS, N.O.S. (Air, Isobutane)	2.2	NDA	NDA
IMO/IMDG	UN1956	COMPRESSED GAS, N.O.S. (Air, Isobutane)	2.2	NDA	NDA
IATA/ICAO	UN1956	Compressed gas, n.o.s (Air, Isobutane)	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
Air - compressed, atmospheric	132259-10-0	No	No	No
Isobutane	75-28-5	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Air - compressed, atmospheric	132259-10-0	No	No	Yes	No	No
Isobutane	75-28-5	Yes	No	Yes	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
Air - compressed, atmospheric	132259-10-0	No
Isobutane	75-28-5	Yes

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

- | | | |
|---------------------------------|-------------|---------------------------------------|
| • Air - compressed, atmospheric | 132259-10-0 | A |
| • Isobutane | 75-28-5 | A, B1 (listed under Methyl-2 propane) |

Canada - WHMIS - Ingredient Disclosure List

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Environment**Canada - 2004 NPRI (National Pollutant Release Inventory)**

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Canada - 2005 NPRI (National Pollutant Release Inventory)

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Canada - CEPA - Priority Substances List

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Other**Canada - Accelerated Reduction/Elimination of Toxics (ARET)**

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Canada New Brunswick**Environment****Canada - New Brunswick - Ozone Depleting Substances - Schedule A**

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

China - Ozone Depleting Substances - Second Schedule

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

China - Ozone Depleting Substances - Third Schedule

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

Other**China - Annex I & II - Controlled Chemicals Lists**

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | Not Listed |

China - Dangerous Goods List

- | | | |
|---------------------------------|-------------|-------------------------------------|
| • Air - compressed, atmospheric | 132259-10-0 | (compressed or refrigerated liquid) |
| • Isobutane | 75-28-5 | |

China - Export Control List - Part I Chemicals

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | Not Listed |

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

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | F+; R12 |

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

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | Not Listed |

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

- | | | |
|---------------------------------|-------------|--------------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | F+ R:12 S:(2)-9-16 |

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

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | C |

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

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | S:(2)-9-16 |

Germany**Environment****Germany - TA Luft - Types and Classes**

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 1

- | | | |
|---------------------------------|-------------|--|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | ID Number 562, not considered hazardous to water (ratio 1,3-butadiene <0.1%) |

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

- | | | |
|---------------------------------|-------------|------------|
| • Air - compressed, atmospheric | 132259-10-0 | Not Listed |
| • Isobutane | 75-28-5 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 3

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

United Kingdom - Substances Contained in Dangerous Substances or Preparations

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

United Kingdom - List of Dangerous Substances in Water

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
• Isobutane	75-28-5	Not Listed

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

• Air - compressed, atmospheric	132259-10-0	Not Listed
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• Isobutane

75-28-5

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

- 07/October/2014

Preparation Date

- 07/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