

Safety Data Sheet

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

Product Name	2,2-Dimethylpropane
Synonyms	Neopentane
CAS Number	463-82-1
Product Code	463-82-1/E-3
EC Number	207-343-7
Molecular Formula	:C 5:H 12:

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

Relevant identified use(s)	Test Gas/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	Flammable Gases 1 - H220 Liquefied Gas - H280 Hazardous to the aquatic environment Chronic 2 - H411
DSD/DPD	Extremely Flammable (F+) Dangerous to the Environment (N) R12, R51, R53

2.2 Label Elements

CLP

DANGER

Hazard statements | H220 - Extremely flammable gas
 H280 - Contains gas under pressure; may explode if heated
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention | P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P273 - Avoid release to the environment.

Response | P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 P381 - Eliminate all ignition sources if safe to do so.
 P391 - Collect spillage.

Storage/Disposal | P403 - Store in a well-ventilated place.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

Risk phrases | R12 - Extremely flammable.
 R51 - Toxic to aquatic organisms.
 R53 - May cause long-term adverse effects in the aquatic environment.

Safety phrases | S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S57 - Use appropriate containment to avoid environmental contamination.

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
 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
 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
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

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
 Flammable Gases - B1

2.2 Label elements

WHMIS



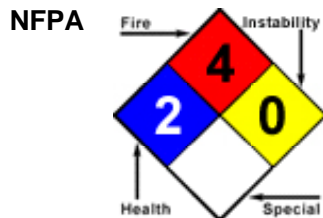
| Compressed Gas - A
 Flammable Gases - B1

2.3 Other hazards

WHMIS

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

2.4 Other information



Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition			
Chemical Name	Identifiers	%	Classifications According to Regulation/Directive

2,2-Dimethylpropane	CAS:463-82-1 EC Number:207-343-7 EU Index:601-005-00-6	> 99%	EU DSD/DPD: Annex I - F+; R12 N; R51-53 EU CLP: Annex VI - Flam. Gas 1, H220; Press. Gas - Liq. H280; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam. Gas 1; Press. Gas - Liq.; Simp. Asphyx.; HNOC - Frostbite
---------------------	--	----------	--

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 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 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 | EXTREMELY FLAMMABLE

Hazards	<p>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.</p>
----------------	--

Hazardous Combustion Products	<p>Toxic carbon monoxide may be given off during combustion.</p>
--------------------------------------	--

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

Emergency Procedures	<p>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. 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)</p>
-----------------------------	--

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures	<p>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.</p>
--------------------------------------	---

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. Use only with adequate ventilation. Take precautionary measures against static charges. Use only non-sparking tools. All equipment used when handling the product must be grounded. Use explosion-proof - electrical, ventilating and/or lighting equipment. 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**

- 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.

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	China	Europe	France
2,2-Dimethylpropane (463-82-1)	TWAs	600 ppm TWA (listed under Pentane, all isomers)	600 ppm TWA (listed under Pentane, all isomers)	500 mg/m3 TWA (listed under Pentane (all isomers))	1000 ppm TWA; 3000 mg/m3 TWA	1000 ppm TWA [VME] (restrictive limit); 3000 mg/m3 TWA [VME] (restrictive limit)
	STELs	Not established	Not established	1000 mg/m3 STEL (listed under Pentane (all isomers))	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Germany DFG	Germany TRGS	Ireland	Israel	Italy
2,2-Dimethylpropane (463-82-1)	TWAs	Not established	1000 ppm TWA AGW (exposure factor 2); 3000 mg/m3 TWA AGW (exposure factor 2)	1000 ppm TWA; 3000 mg/m3 TWA	600 ppm TWA (listed under Pentane, all isomers)	1000 ppm TWA; 3000 mg/m3 TWA
	STELs	Not established	Not established	750 ppm STEL; 2250 mg/m3 STEL	Not established	Not established
	Ceilings	2000 ppm Peak (listed under Pentane); 6000 mg/m3 Peak (listed under Pentane)	Not established	Not established	Not established	Not established
	MAKs	1000 ppm TWA MAK; 3000 mg/m3 TWA MAK	Not established	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Portugal	Spain	Sweden		
			1000 ppm TWA [VLA-			

2,2-Dimethylpropane (463-82-1)	TWAs	600 ppm TWA [VLE-MP] (as Pentane, all isomers)	ED] (indicative limit value); 3000 mg/m ³ TWA [VLA-ED] (indicative limit value)	600 ppm LLV; 1800 mg/m ³ LLV
	STELs	Not established	Not established	750 ppm STV; 2000 mg/m ³ STV

Exposure Control Notations

Germany DFG

•2,2-Dimethylpropane (463-82-1): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. 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 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

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

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

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

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 pleasant aromatic odor.
Color	Colorless	Odor	Pleasant aromatic odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	9.5 C(49.1 F)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.59 Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	1100 mmHg (torr) @ 20 C(68 F)	Vapor Density	2.48 Air=1
Evaporation Rate	Data lacking		

Flammability

Flash Point	-65 C (-85 F)	UEL	7.5 %
LEL	1.4 %	Autoignition	450 C (842 F)
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

- Oxidizing agents.

10.6 Hazardous decomposition products

- None

Section 11 - Toxicological Information**11.1 Information on toxicological effects**

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Dermal - Data lacking; Acute Toxicity - Inhalation - Data lacking; Acute Toxicity - Oral - Data lacking OSHA HCS 2012 • Acute Toxicity - Dermal - Data lacking; Acute Toxicity - Inhalation - Data lacking; Acute Toxicity - Oral - Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Inconclusive data
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

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 • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

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) | Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.

Chronic (Delayed) | No data available

Eye

Acute (Immediate) | Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.

Chronic (Delayed) | No data available

Ingestion

Acute (Immediate) | Ingestion can cause burns similar to frostbite.

Chronic (Delayed) | No data available

Section 12 - Ecological Information

12.1 Toxicity

| Toxic to aquatic life with long lasting effects.

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

| 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	UN2044	2,2-Dimethylpropane	2.1	NDA	NDA
TDG	UN2044	2,2-DIMETHYLPROPANE	2.1	NDA	NDA
IMO/MDG	UN2044	2,2-DIMETHYLPROPANE	2.1	NDA	NDA
IATA/ICAO	UN2044	2,2-Dimethylpropane	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
2,2-Dimethylpropane	463-82-1	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
2,2-Dimethylpropane	463-82-1	Yes	No	No	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
2,2-Dimethylpropane	463-82-1	Yes

Canada

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

• 2,2-Dimethylpropane	463-82-1	A, B1
-----------------------	----------	-------

Canada - WHMIS - Ingredient Disclosure List

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

China - Ozone Depleting Substances - Second Schedule

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

China - Ozone Depleting Substances - Third Schedule

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

China - Dangerous Goods List

• 2,2-Dimethylpropane	463-82-1	
-----------------------	----------	--

China - Export Control List - Part I Chemicals

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	F+; R12 N; R51-53
-----------------------	----------	-------------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	F+ N R:12-51/53 S:(2)-9-16-33-61
-----------------------	----------	----------------------------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	S:(2)-9-16-33-61
-----------------------	----------	------------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• 2,2-Dimethylpropane	463-82-1	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• 2,2-Dimethylpropane	463-82-1	ID Number 463, hazard class 1 - low hazard to waters
Germany - Water Classification (VwVwS) - Annex 3		
• 2,2-Dimethylpropane	463-82-1	Not Listed

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

United Kingdom - List of Dangerous Substances in Water

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

U.S. - OSHA - Specifically Regulated Chemicals

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

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

• 2,2-Dimethylpropane	463-82-1	Not Listed
-----------------------	----------	------------

15.2 Chemical Safety Assessment

| No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date | 22/December/2014

Preparation Date | 22/December/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
