

Safety Data Sheet

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

Product Name	Isopropyl Alcohol
Synonyms	2-Hydroxypropane; 2-Propanol; Dimethyl Carbinol; IPA; Isohol; Isopropanol; Lutosos; rubbing alcohol; SEC-Propyl alcohol
CAS Number	67-63-0
Product Code	80103
EC Number	200-661-7
Molecular Formula	:C 3:H 8:O 1:

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

Relevant identified use(s)	Solvent, Wafer Cleaning and Rinsing
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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 Liquids 2 - H225 Eye Irritation 2 - H319 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
DSD/DPD	Highly Flammable (F) Irritant (Xi) R11, R36, R67

2.2 Label Elements

CLP

DANGER

Hazard statements | H225 - Highly flammable liquid and vapour
 H319 - Causes serious eye irritation
 H336 - May cause drowsiness or dizziness

Precautionary statements

Prevention | P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing mist/vapours/spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response | P370+P378 - In case of fire: Use appropriate media for extinction.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.

Storage/Disposal | P233 - Keep container tightly closed.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

Risk phrases | R11 - Highly flammable.
 R36 - Irritating to eyes.
 R67 - Vapours may cause drowsiness and dizziness.

Safety phrases | S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

CLP | According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD | 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 Liquids 2 - H225
 Eye Irritation 2 - H319
 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements | Highly flammable liquid and vapour - H225
Causes serious eye irritation - H319
May cause drowsiness or dizziness - H336

Precautionary statements

Prevention | Keep away from heat, sparks, open flames and/or hot surfaces. - P210
Keep container tightly closed. - P233
Ground and/or bond container and receiving equipment. - P240
Use explosion-proof electrical/ventilating/lighting/equipment. - P241
Use only non-sparking tools. - P242
Take precautionary measures against static discharge. - P243
Avoid breathing mist/vapours/spray. - P261
Wash thoroughly after handling. - P264
Use only outdoors or in a well-ventilated area. - P271
Wear protective gloves/protective clothing/eye protection/face protection. - P280

Response | In case of fire: Use appropriate media for extinction. - P370+P378
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
Call a POISON CENTER or doctor/physician if you feel unwell. - P312
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
If eye irritation persists: Get medical advice/attention. - P337+P313

Storage/Disposal | Keep container tightly closed. - P233
Store in a well-ventilated place. Keep cool. - P403+P235
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

| 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 | Flammable Liquids - B2
Other Toxic Effects - D2B

2.2 Label elements

WHMIS



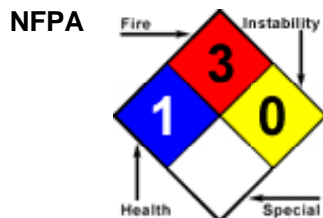
| Flammable Liquids - B2
Other Toxic Effects - D2B

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

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Isopropyl alcohol	CAS:67-63-0 EC Number:200-661-7 EU Index:603-117-00-0	100%	Skin-Rabbit LD50 • 12800 mg/kg Ingestion/Oral-Rat LD50 • 5000 mg/kg Inhalation-Rat LC50 • 72600 mg/m ³	EU DSD/DPD: Annex I: F; R11 Xi; R36 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; STOT SE 3: Narc.

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**
- Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Move victim to fresh air.
- Skin**
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Wash skin with soap and water.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion**
- Get medical attention immediately.

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.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media | LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

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.
Vapor explosion hazard indoors, outdoors or in sewers.
HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Many liquids are lighter than water.
Runoff to sewer may create fire or explosion hazard.
Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
Vapors may form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products | No data available

5.3 Advice for firefighters

| Structural firefighters' protective clothing will only provide limited protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions | Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures | As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. 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. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

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 | Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

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 explosion-proof - electrical, ventilating and/or lighting equipment. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist/vapors/spray. Avoid contact with skin, eyes, and clothing. Empty containers retain product residue and can be hazardous. Do not cut, weld, puncture or incinerate container. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Keep away from heat, sparks, and flame. Store in a cool, dry, well-ventilated place.

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	Canada Quebec	China	France
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL	400 ppm STEL	500 ppm STEV; 1230 mg/m3 STEV	700 mg/m3 STEL	400 ppm STEL [VLCT]; 980 mg/m3 STEL [VLCT]
	TWAs	200 ppm TWA	200 ppm TWA	400 ppm TWAEV; 985 mg/m3 TWAEV	350 mg/m3 TWA	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Germany DFG	Germany TRGS	Ireland	Israel	NIOSH
Isopropyl alcohol (67-63-0)	STELs	Not established	Not established	400 ppm STEL	400 ppm STEL	500 ppm STEL; 1225 mg/m3 STEL
	TWAs	Not established	200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 500 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)	200 ppm TWA	200 ppm TWA	400 ppm TWA; 980 mg/m3 TWA
	Ceilings	400 ppm Peak; 1000 mg/m3 Peak	Not established	Not established	Not established	Not established
	MAKs	200 ppm TWA MAK; 500 mg/m3 TWA MAK	Not established	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	OSHA	OSHA Vacated	Portugal	Spain	Sweden

Isopropyl alcohol (67-63-0)	STELs	Not established	500 ppm STEL; 1225 mg/m ³ STEL	400 ppm STEL [VLE-CD]	400 ppm STEL [VLA-EC]; 1000 mg/m ³ STEL [VLA-EC]	250 ppm STV; 600 mg/m ³ STV
	TWAs	400 ppm TWA; 980 mg/m ³ TWA	400 ppm TWA; 980 mg/m ³ TWA	200 ppm TWA [VLE-MP]	200 ppm TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound); 500 mg/m ³ TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound)	150 ppm LLV; 350 mg/m ³ LLV
	Biological Limit Values (BLV)	Not established	Not established	Not established	40 mg/L urine end of workweek Acetone (1,F,I)	Not established

Exposure Control Notations

Portugal

• Isopropyl alcohol (67-63-0): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Ireland

• Isopropyl alcohol (67-63-0): **Skin:** (Potential for cutaneous absorption)

Germany DFG

• Isopropyl alcohol (67-63-0): **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

- 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

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

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

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

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	Liquid	Appearance/Description	Colorless liquid with a pleasant alcohol odor.
Color	Colorless	Odor	Alcohol Odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	82.5 C(180.5 F)	Melting Point	-85.9 C(-122.62 F)
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.785 Water=1	Water Solubility	100 %
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility			
Vapor Pressure	44 mmHg (torr) @ 25 C(77 F)	Vapor Density	2.08 Air=1
Evaporation Rate	2.83 n-Butyl Acetate = 1	Volatiles (Vol.)	100 %
Flammability			
Flash Point	11 C(51.8 F) CC (Closed Cup)	UEL	12.7 %
LEL	2 %	Autoignition	399 C(750.2 F)
Flammability (solid, gas)	Flammable Liquid.		
Environmental			
Octanol/Water Partition coefficient	0.05 Kow at 25°C		

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

- Strong oxidizing agents; aluminum; chlorine; phosgene; strong acids including: perchloric acid, nitric acid, sulfuric acid; amines; ammonia; aldehydes including, acetaldehyde; potassium tertbutoxide; isocyanates; and oleum.

10.6 Hazardous decomposition products

- Carbon dioxide. Carbon monoxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

	CAS	
Isopropyl Alcohol	67-63-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5000 mg/kg; <i>Behavioral:</i> General anesthetic ; Inhalation-Rat LC50 • 16000 ppm 8 Hour(s); Skin-Rabbit LD50 • 12800 mg/kg; Irritation: Eye-Rabbit • 100 mg • Severe irritation; Skin-Rabbit • 500 mg • Mild irritation; Reproductive: Inhalation-Rat TCLo • 3500 ppm 7 Hour(s)(1-19D preg); <i>Reproductive Effects:</i> Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus)

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 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
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 • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2

Potential Health Effects

Inhalation

- Acute (Immediate)** | May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma 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)** | Causes serious eye irritation.
- Chronic (Delayed)** | No data available

Ingestion

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

Key to abbreviations

TC = Toxic Concentration

LC = Lethal Concentration

LD = Lethal Dose

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	UN1219	Isopropanol or Isopropyl alcohol	3	II	NDA
TDG	UN1219	ISOPROPANOL; or ISOPROPYL ALCOHOL	3	II	NDA
IMO/IMDG	UN1219	ISOPROPANOL (ISOPROPYL ALCOHOL)	3	II	NDA
IATA/ICAO	UN1219	Isopropyl alcohol	3	II	NDA

14.6 Special precautions for user

| None known.

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 | Fire, Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Isopropyl alcohol	67-63-0	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Isopropyl alcohol	67-63-0	Yes	No	Yes	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
Isopropyl alcohol	67-63-0	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Isopropyl alcohol 67-63-0 B2, D2B (including 70%)

Canada - WHMIS - Ingredient Disclosure List

• Isopropyl alcohol 67-63-0 1 %

Environment

Canada - CEPA - Priority Substances List

• Isopropyl alcohol 67-63-0 Not Listed

China

Environment

China - Ozone Depleting Substances - First Schedule

• Isopropyl alcohol 67-63-0 Not Listed

China - Ozone Depleting Substances - Second Schedule

• Isopropyl alcohol 67-63-0 Not Listed

China - Ozone Depleting Substances - Third Schedule

• Isopropyl alcohol 67-63-0 Not Listed

Other

China - Annex I & II - Controlled Chemicals Lists

• Isopropyl alcohol 67-63-0 Not Listed

China - Dangerous Goods List

• Isopropyl alcohol 67-63-0

China - Export Control List - Part I Chemicals

• Isopropyl alcohol 67-63-0 Not Listed

Europe

Other

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

• Isopropyl alcohol	67-63-0	F; R11 Xi; R36 R67
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Isopropyl alcohol	67-63-0	Not Listed
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Isopropyl alcohol	67-63-0	F Xi R:11-36-67 S:(2)-7-16-24/25-26
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Isopropyl alcohol	67-63-0	Not Listed
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Isopropyl alcohol	67-63-0	S:(2)-7-16-24/25-26
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Germany

Environment

Germany - TA Luft - Types and Classes

• Isopropyl alcohol	67-63-0	Not Listed
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Germany - Water Classification (VwVwS) - Annex 1

• Isopropyl alcohol	67-63-0	Not Listed
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Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Isopropyl alcohol	67-63-0	ID Number 135, hazard class 1 - low hazard to waters
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Germany - Water Classification (VwVwS) - Annex 3

• Isopropyl alcohol	67-63-0	Not Listed
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Other

Germany - Specifically Regulated Chemicals in TRGS

• Isopropyl alcohol	67-63-0	Not Listed
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Portugal

Other

Portugal - Prohibited Substances

• Isopropyl alcohol	67-63-0	Not Listed
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United Kingdom

Environment

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

• Isopropyl alcohol	67-63-0	Not Listed
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Other

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

• Isopropyl alcohol	67-63-0	Not Listed
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United Kingdom - List of Dangerous Substances in Water

• Isopropyl alcohol	67-63-0	Not Listed
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United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - OSHA - Specifically Regulated Chemicals

• Isopropyl alcohol	67-63-0	Not Listed
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Environment

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

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Isopropyl alcohol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
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U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Isopropyl alcohol	67-63-0	Not Listed
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United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - California - Proposition 65 - Developmental Toxicity

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Isopropyl alcohol	67-63-0	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- Isopropyl alcohol

67-63-0

Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

- Isopropyl alcohol

67-63-0

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

- Isopropyl alcohol

67-63-0

Not Listed

15.2 Chemical Safety Assessment

| No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date | 09/December/2014

Preparation Date | 09/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