Isopropanol 99
Ultra Pure, LLC
Safety Data Sheet

Revision date: 4 March 2019
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1. Product and Company Identification

1.1 Product identifiers

Product Name	Isopropanol 99
Producer	Ultra Pure, LLC
Product Number	No data available
CAS-No.	67-63-0

1.2 Identified uses of the product and uses advised against

Identified Uses	Solvent, Antiseptic, Deicing/antifreeze agent, chemical feedstock, etc.

1.3 Details of the chemical supplier

Company	Ultra Pure, LLC
Address	50 Old Kings Highway N. Darien, CT 06820 USA
Telephone:	(1)-203-662-9761

1.4 Emergency phone number

Emergency phone number	1-800-424-9300

2. Hazards Identification

2.1 Classification of the substance or mixture

GHS Class
Flammable liquid, Category 2
Eye Irritation, Category 2A
Specific target organ toxicity - single exposure Category 3

Classification according to Regulation (EC) No 1272/2008

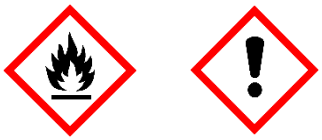
Based on present data no classification and labeling is required according to Directive 1272/2008/EC and its amendments (CLP Regulation, GHS).

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

According to present data no classification and labeling is required according to Directives 67/548/EEC or 1999/45/EC.

2.2 GHS Label elements, including precautionary statements

GHS Pictograms



Signal word: Danger

Hazard statements:
H225 – Highly flammable liquid and vapor
H319– Causes eye irritation
H336 – May cause drowsiness or dizziness

Precautionary statements:
P210 – Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 – Keep container tightly closed.
P240 – Ground/bond container and receiving equipment
P241 – Use explosion-proof electrical/ventilating/light equipment.
P242 – Use only non-sparking tools
P243 – Take precautionary measures against static discharge
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray

P264 – Wash with soap and water thoroughly after handling
P271 – Use only outdoors or in a well-ventilated area
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 – If on skin or hair: Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 – If inhaled: Remove victim to fresh air & keep at rest in a position comfortable for breathing.
P305 + P351 + P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P312 – Call a poison center or doctor/physician if you feel unwell.
P332 + P313 – If skin irritation occurs: get medical advice/attention.
P337 + P313 – If eye irritation persists: get medical advice/attention.
P405 – Store locked up.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - None

3. Composition/Information on Ingredients

3.1 Product mixture

Synonyms	Isopropyl Alcohol, 2-Propanol, Dimethylcarbinol
Formula	C_3H_8O
Molecular wt	60.10g/mol
CAS-No.	67-63-0
EC-No.	200-661-7

Chemical Name	CAS-No.	EC-No.	Ingredient Percent
Isopropyl Alcohol	67-63-0	200-661-7	100

Remarks: There are no additional hazardous ingredients greater than or equal to 1.0 wt% concentration or carcinogenic ingredients greater than or equal to 0.1 wt% concentration.

4. First Aid Measures

4.1 Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
Skin contact	Wash off with soap and water. Consult a physician if symptoms occur.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if symptoms occur.
Inhalation	In case of difficult breathing, move person to fresh air. Consult a physician if symptoms occur.
Ingestion	Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects: The most important known symptoms and effects are described in the labelling (see section 2.2) and in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Other first aid: No data available

5. Fire Fighting Measures

5.1 Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Special hazards: Excessive thermal decomposition at very high temperatures can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

5.3 Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

Personal precautions — For personal protection see section 8.

6.2 Environmental precautions

Environmental precautions — In case of large spills, dike spill to prevent runoff into sewers and drains. Recover as much of the material as possible.

6.3 Methods and materials for containment and cleaning up

Methods for cleanup — Soak up with inert absorbent material and dispose. Keep in suitable, closed containers for disposal.

6.4 References to other sections

Other references — For disposal see section 13.

7. Handling and Storage

7.1 General hygiene considerations

General hygiene — Avoid contact with skin and eyes. In case of large quantities of vapor or mist, use local exhaust or general dilution ventilation to control exposure within applicable limits. For precautions see section 2.2.

7.2 Precautions for safe handling

Safe handling precautions — Keep container tightly closed in a dry and well-ventilated place.

7.3 Conditions for safe storage, including any incompatibilities

Other storage conditions — Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure Controls/Personal Protection

8.1 Control and exposure limits recommended by the chemical manufacturer

MATERIAL	CAS-No.	EC-No.	TWA (OSHA)	TLVA (ACGIH)
Isopropyl Alcohol	67-63-0	200-661-7	200 ppm	400 ppm

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 8.1%.

8.2 Appropriate engineering controls

Engineering controls — Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Use adequate ventilation where dust forms to keep concentration under exposure control limits.

8.3 Individual protection measures, such as personal protective equipment

Respiratory protection — None required for consumer use. For manufacturing quantities: where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye/face protection — None required for consumer use. For manufacturing quantities: safety glasses with side-shields conforming to EN166 are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand protection — None required for consumer use. For manufacturing quantities: handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection — None required for consumer use. For manufacturing quantities: wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance — Colorless Liquid

b) Odor — Pleasant

c)	Odor threshold	90.00 mg/m^3
d)	pH	No data available
e)	Melting/freezing point	-88°C (-126.2°F)
f)	Boiling point	82.3°C (180.1°F)
g)	Flash point	12°C (53.6°F)
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	Upper (UEL): 12.7% for ethanol Lower (LEL): 2.0% for ethanol
k)	Vapor pressure	45.4 mm of Hg @ 25°C
l)	Vapor density	2.1
m)	Relative density	0.79
n)	Water solubility	Miscible
o)	Partition coefficient octanol/water	0.05
p)	Auto-ignition temp	399°C (750.2°F)
q)	Decomposition temp	No data available
r)	Viscosity	No data available

10. Stability and Reactivity

10.1 Reactivity

Reactivity	No data available

10.2 Chemical stability

Chemical stability	Stable under ordinary conditions of use and storage. Hygroscopic.

10.3 Possibility of hazardous reactions

Hazardous reactions	Reacts with strong oxidants

10.4 Conditions to avoid

Conditions to avoid	Heat, flames and sparks.

10.5 Incompatible materials

Incompatible materials	Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6 Hazardous decomposition products

Hazardous products	Hazardous decomposition products formed under fire conditions. - Carbon oxides In the event of fire, see section 5.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	LD50 Oral - Rat - 5,045 mg/kg Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).
Acute dermal toxicity	Primary irritation to skin, defatting, dermatitis.
Acute inhalation toxicity	LC50 Inhalation - Rat - male and female - 4 h - 37.5 mg/l (OECD Test Guideline 403)

Skin corrosion/irritation

Skin corrosion irritation	LD50 Dermal - Rabbit - 12,800 mg/kg

Serious eye damage/eye irritation

Eye damage/eye irritation	Can cause eye irritation

Respiratory or skin sensitization

Respiratory sensitizer	No data available
Skin sensitizer	No data available

Germ cell mutagenicity

Mutagenicity	No data available

Suspected cancer agent

ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

Reproductive toxicity

Reproductive toxicity	This product is not reported to produce mutagenic, embryotoxic, teratogenic, or reproductive effects in humans.

Aspiration hazard

Aspiration hazard	No data available

12. Ecological Information

12.1 Ecotoxicity (aquatic and terrestrial)

Ecotoxicity	Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 9,640 mg/l - 96 h (US-EPA) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 13,299 mg/l - 48 h Remarks: (IUCLID) Toxicity to algae IC50 - Desmodesmus subspicatus (green algae) - > 1,000 mg/l - 72 h Remarks: (IUCLID) Toxicity to bacteria EC5 – Pseudomon

12.2 Persistence and degradability

Degradability	aerobic - Exposure time 21 d Result: 95 % - Readily biodegradable. (OECD Test Guideline 301E)

12.3 Bioaccumulation potential

Bioaccumulation	No bioaccumulation is to be expected (log Pow <= 4)

12.4 Mobility in soil

Mobility in soil	No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment	Not available as chemical safety assessment not required/not conducted.

13. Disposal Considerations

13.1 Waste treatment methods

Waste treatment disposal	Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority

14. Transport Information

DOT
UN number: 1219 Class: 3 Packing group: II Proper shipping name: Isopropanol Reportable Quantity (RQ): Poison Inhalation Hazard: No

TDG
UN number: 1219 Class: 3 Packing group: II EMS-No: F-E, S-D Proper shipping name: ISOPROPANOL

IMDG
UN number: 1219 Class: 3 Packing group: II EMS-No: F-E, S-D Proper shipping name: ISOPROPANOL

IATA

UN number: 1219 Class: 3 Packing group: II EMS-No: F-E, S-D Proper shipping name: ISOPROPANOL

15. Regulatory Information

15.1 Safety, health, and environmental regulations specific to the product or mixture

SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 311/312 Hazards	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313 Components	The following components are subject to reporting levels established by SARA Title III, Section 313: 2-Propanol CAS-No. 67-63-0

TSCA	All components of this product are on the TSCA list.
EINECS	No components of this product are on the European Inventory of Existing Commercial Chemical Substances.
Canada DSL	All components of this product are on the Canada Domestic Substance List.
CA Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

HMIS Rating	Health hazard: 2 Flammability: 4 Physical Hazard: 0
NFPA Rating	Health hazard: 2 Fire Hazard: 4 Reactivity Hazard: 0
Revision Date	4 March 2019

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Ultra Pure, LLC assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Ultra Pure, LLC assumes no responsibility for injury to vendee or third persons proximately caused by use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

Abbreviations and acronyms

IMDG - International Maritime Code for Dangerous Goods
TDG - Transportation of Dangerous Goods
IATA - International Air Transport Association
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
PBT - Persistent, bioaccumulative and toxic assessment
vPvB - Very persistent and very bioaccumulative assessment
ACGIH - American Conference of Governmental Industrial Hygienists
NIOSH - National Institute for Occupational Safety and Health
TLV - Threshold Limit Values
CAS - Chemical Abstracts Service (division of the American Chemical Society)
NFPA - National Fire Protection Association
HMIS - Hazardous Materials Identification System
CFR - Code of Federal Regulations
SARA - Superfund Amendments and Reauthorization Act
DOT - US Department of Transportation
EC50 - Half maximal effective concentration
LD50 - Median lethal dose
LC50 - Median lethal concentration
SDS - Safety Data Sheet