



Safety Data Sheet

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Section 1 - Identification

1.1 Product Identifier

Product Name : 2-Propanol

CAS No. : 67-63-0

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : 9920 Pacific Heights Blvd
Suit 150
San Diego
California -92121

1.4 Emergency Telephone number

Emergency phone : +1 (858) 245-0283

Section 2: Hazard Identification

2.1 Classification of the substance or the mixture – Regulation (EC) No. 1272/2008

Flammable liquids	Category 2	H225:Highly flammable liquid and vapour.
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Eye irritation	Category 2	H319:Causes serious eye irritation.
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Specific target organ toxicity - single exposure	Category 3	H336:May cause drowsiness or dizziness.
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2.2 Label elements

Label according Regulation (EC) 1272/2008

Pictogram



Signal Word:
DANGER

Hazard statements

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

Precautionary statements

- | | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking |
| P233 | Keep container tightly closed |
| P240 | Ground and bond container and receiving equipment |
| P241 | Use explosion-proof electrical/ ventilating/ lighting equipment |
| P242 | Use non-sparking tools |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes
Remove contact lenses, if present and easy to do. Continue rinsing. |

Supplemental Hazard Statements	none
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Reduced Labelling (<= 125 ml)

Pictogram



Signal Word:
DANGER

Hazard statements	none
Precautionary statements	none
Supplemental Hazard Statements	none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1 Substance

Synonyms	: sec-Propyl alcohol Isopropyl alcohol Isopropanol
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Formula	: C ₃ H ₈ O
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Molecular weight : 60.10 g/mol
CAS-No. : 67-63-0
EC-No. : 200-661-7
Index-No. : 603-117-00-0

Section 4: First aid measures

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3 Indications of any immediate medical attention and special treatment needed

No data available.

Section 5: Firefighting measures

5.1 Extinguishing Media

Suitable extinguishing media

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given

5.2 Special hazard arising from the substance or mixture

Carbon oxides.

Combustible.

Pay attention to flashback.

Vapours are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environment precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Handle and store under inert gas. Hygroscopic

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure controls – Personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Predicted No Effect Concentration (PNEC)

Compartment	Value
Soil	28 mg/kg
Marine water	140.9 mg/l
Fresh water	140.9 mg/l
Marine sediment	552 mg/kg
Fresh water sediment	552 mg/kg

8.2 Exposure Controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 480 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please

contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Chloroprene

Minimum layer thickness: 0,65 mm

Break through time: 120 min

Material tested: KCL 720 Camapren®

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic Compounds

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	colourless
Odor	alcohol-like
Melting point/freezing point	Melting point/ range: -89.5 °C
Initial boiling point and boiling range	82 °C
Flammability (solid, gas)	No data available

Upper/lower flammability or explosive limits	Upper explosion limit: 13.4 %(V) Lower explosion limit: 2 %(V)
Flash point	12.0 °C - closed cup
Autoignition temperature	425.0 °C
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
pH	at 20 °C neutral
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 2.2 mPa.s at 20 °C
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	log Pow: 0.05 - Bioaccumulation is not expected
Vapor pressure	43 hPa at 20 °C
Density	0.785 g/mL at 25 °C
Relative density	No data available
Relative vapour density	No data available
Particle characteristics	No data available
Explosive properties	Not classified as explosive
Oxidizing properties	none

9.2 Other safety information

Minimum ignition energy	0.65 mJ
Conductivity	< 0.1 µS/cm
Surface tension	20.8 mN/m at 25.0 °C
Relative vapour density	2.07

Section 10: Stability and reactivity

10.1 Reactivity

Formation of peroxides possible.
Vapours may form explosive mixture with air.

10.2 Chemical stability

Reacts with air to form peroxides.
The product is chemically stable under standard ambient conditions (room temperature) .
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Warming

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 5.840 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 37,5 mg/l - vapour

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - 12.800 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

Buehler Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: In vivo micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal injection

Method: OECD Test Guideline 474

Result: negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity

based on its IARC, ACGIH, NTP, or EPA classification.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation, Oral - May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: NT8050000

Central nervous system depression, prolonged or repeated exposure can cause:, Nausea, Headache, Vomiting, narcosis, Drowsiness, Overexposure may cause mild, reversible liver effects., Aspiration may lead to:, Lung oedema, Pneumonia

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

Headache

Dizziness

inebriation

Unconsciousness

narcosis

After uptake of large quantities:

Coma

Handle in accordance with good industrial hygiene and safety practice.

Kidney - Irregularities - Based on Human Evidence

Section 12: Ecological information

12.1 Toxicity

Toxicity to fish:-flow-through test LC50 - Pimephales promelas (fathead minnow) -
9.640 mg/l - 96 h
(OECD Test Guideline 203)

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 - 72h
Remarks: (IUCLID)

Toxicity to bacteria EC5 - Pseudomonas putida - 1.050 mg/l - 16 h
Remarks: (Lit.)

12.2 Persistence and degradability

Biodegradability:- aerobic - Exposure time 5 d
Result: 53 % - Readily biodegradable.
(Directive 67/548/EEC, Annex V, C.6)

Theoretical oxygen demand:-
2.400 mg/g
Remarks: (Lit.)

Ratio BOD/ThBOD:- 49 %
Remarks: (IUCLID)

12.3 Bioaccumulated potential

No bioaccumulation is to be expected ($\log P_{ow} \leq 4$).

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

Section 13: Disposal considerations

13.1 Waste treatment methods

No data available

Section 14: Transportation information

14.1 UN Number

ADR/RID	1219
IMDG	1219
IATA	1219

14.2 UN proper shipping name

ADR/RID	ISOPROPANOL
IMDG	ISOPROPANOL
IATA	ISOPROPANOL

14.3 Transport hazard class(es)

ADR/RID	3
IMDG	3
IATA	3

14.4 Packaging group

ADR/RID	II
IMDG	II
IATA	II

14.5 Environmental hazards

ADR/RID	no
IMDG	no
IATA	no

14.6 Special precautions for user

Tunnel restriction code	(D/E)
Further information	No data available

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

National legislation

Seveso III: Directive 2012/18/EU of the P5c FLAMMABLE LIQUIDS

European Parliament and of the Council
on the control of major-accident hazards
involving dangerous substances.

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

Section 16: Other information

Full text of H-statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Further information

The information and recommendations in this SDS are to the best of our knowledge, information and belief accurate at the time of publication. Although utmost care is been taken in composition of this text, Highpuric LLC cannot be held responsible for any damage resulting from any possible error in this publication.