

## ISOPROPYL ALCOHOL

Revision: 1 January 2024

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : ISOPROPYL ALCOHOL  
Substance name : ISOPROPYL ALCOHOL  
EC No. : 200-661-7  
CAS No. : 67-63-0

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

Use of the Substance/Mixture : raw material for photochemicals, raw material for cleaning agents and disinfectants, process control substance, Solvent, industrial use

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2  
Eye irritation, Category 2, Eyes  
Specific target organ toxicity - single exposure, Category 3, Central nervous system

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

##### Classification (67/548/EEC, 1999/45/EC)

Highly flammable  
Irritant

R11: Highly flammable.  
R36: Irritating to eyes.  
R67: Vapours may cause drowsiness and dizziness.

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## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word :

Danger

Hazard statements :

H225  
H319  
H336

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

Precautionary statements :

**Prevention:**

P243

Take precautionary measures against static discharge.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P271

Use only outdoors or in a well-ventilated area.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340

IF INHALED: Remove victim to fresh air and 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.

## 2.3 Other hazards

No information available.

## 3. Composition/information on ingredients

### 3.1 Substances

Chemical Name	CAS-No. EINECS-No. / ELINCS No.	content [%]
propan-2-ol; isopropyl alcohol; isopropanol	67-63-0 200-661-7	< 100

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## 4. First aid measures

### 4.1 Description of first aid measures

- General advice : Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
- In case of skin contact : Wash off with plenty of water.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed : Drink plenty of water.  
Do NOT induce vomiting.  
Obtain medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

- Risks : No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

## 5. Fire-fighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder

- Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire fighting : No information available.

### 5.3 Advice for firefighters

- Further information : Use water spray to cool unopened containers.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Ensure adequate ventilation.  
Keep away from sources of ignition - No smoking.

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## 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Do not allow material to contaminate ground water system.

## 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

## 6.4 Reference to other sections

For personal protection see section 8.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Ensure adequate ventilation.  
Vapours are heavier than air and may spread along floors.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.  
Vapours may form explosive mixtures with air.  
Do not allow to enter drains (danger of explosion).  
Take precautionary measures against static discharges.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed.  
Store between 5 and 25 °C in a dry, well ventilated place  
away from sources of heat, ignition and direct sunlight.

German storage class : 3 Flammable Liquids

### 7.3 Specific end uses

: Consult the technical guidelines for the use of this  
substance/mixture.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL  
propan-2-ol; isopropyl alcohol; isopropanol : End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: Chronic effects  
Exposure time: 1 d  
Value: 888 mg/kg

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End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: Chronic effects  
Value: 500 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Chronic effects  
Exposure time: 1 d  
Value: 319 mg/kg

End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Chronic effects  
Value: 89 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Ingestion  
Potential health effects: Chronic effects  
Exposure time: 1 d  
Value: 26 mg/kg

PNEC  
propan-2-ol; isopropyl  
alcohol; isopropanol

: Fresh water  
Value: 140.9 mg/l

Marine water  
Value: 140.9 mg/l

Fresh water sediment  
Value: 552 mg/kg

Marine sediment  
Value: 552 mg/kg

Soil  
Value: 28 mg/kg

## 8.2 Exposure controls

### Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.
- Eye protection : Tightly fitting safety goggles
- Hygiene measures : Take off all contaminated clothing immediately.

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Protective measures : Avoid contact with the skin and the eyes.  
Do not breathe vapours or spray mist.

## Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.  
Do not allow material to contaminate ground water system.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid  
Colour : colourless  
Odour : alcohol-like  
pH : not applicable  
Melting point/range : -89 °C  
Boiling point/boiling range : 82 °C, 1,013 hPa  
Flash point : 12 °C  
Lower explosion limit : 2 %(V)  
Upper explosion limit : 12 %(V)  
Vapour pressure : 42 hPa, 20 °C  
60.2 hPa, 25 °C  
Density : 0.7855 g/cm<sup>3</sup>, 20 °C  
Water solubility : completely miscible  
Partition coefficient: n-octanol/water : log Pow: 0.05, 25 °C, (literature value)  
Autoignition temperature : > 399 °C  
Ignition temperature : 425 °C  
Thermal decomposition : No decomposition if used as directed.  
Viscosity, dynamic : 2.5 mPas, 20 °C  
2.1 mPas, 25 °C  
Explosive properties : Not explosive, Not explosive

### 9.2 Other information

Oxidising potential : No data available  
Refractive index : 1.376 - 1.378, 20 °C

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## 10. Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No data available

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : No data available

### 10.6 Hazardous decomposition products

Hazardous decomposition products : No decomposition if stored normally.

## 11. Toxicological information

### 11.1 Information on toxicological effects

Further information : no data available

#### Components:

#### **propan-2-ol; isopropyl alcohol; isopropanol :**

Acute oral toxicity : LD50: > 2,000 mg/kg, rat, GLP: no, (literature value)

Acute dermal toxicity : LD50: > 2,000 mg/kg, rabbit, GLP: no, (literature value)

Skin corrosion/irritation : rabbit, Result: not irritating, GLP: no, (literature value)

Serious eye damage/eye irritation : rabbit, Result: irritating, GLP: no, (literature value)

Respiratory or skin sensitization : Buehler Test, guinea pig, Result: not sensitizing, GLP: no, (literature value)

Germ cell mutagenicity

Genotoxicity in vitro : Ames test, Salmonella typhimurium, with and without, Result: not mutagenic, GLP: no, (literature value)

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## 12. Ecological information

### 12.1 Toxicity

#### Components:

#### **propan-2-ol; isopropyl alcohol; isopropanol :**

- Toxicity to fish : LC50: > 100 mg/l, 48 h, *Leuciscus idus melanotus*, static, GLP: no, (literature value)
- Toxicity to daphnia and other aquatic invertebrates. : EC50: > 100 mg/l, 48 h, *Daphnia magna*, static test, GLP: no, (literature value)
- Toxicity to algae : EC50: > 100 mg/l, 72 h, *Scenedesmus subspicatus*, static test, GLP: no, (literature value)

### 12.2 Persistence and degradability

#### Components:

#### **propan-2-ol; isopropyl alcohol; isopropanol :**

- Biodegradability : aerobic, > 70 %, Result: Readily biodegradable., Exposure time: 10 d, content: 7 mg/l, GLP: no, (literature value)

### 12.3 Bioaccumulative potential

### 12.4 Mobility in soil

### 12.5 Results of PBT and vPvB assessment

#### Components:

#### **propan-2-ol; isopropyl alcohol; isopropanol :**

- Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

### 12.6 Other adverse effects

#### Product:

- Additional ecological information : No data available

## 13. Disposal considerations

### 13.1 Waste treatment methods

- Product : Following pre-treatment and observing the regulations for hazardous wastes, it must be taken to a permitted hazardous wastes landfill or hazardous wastes incinerator.
- Contaminated packaging : Can be used after re-conditioning.

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## 14. Transport information

### 14.1 UN number

ADR : 1219  
RID : 1219  
IMDG : 1219  
IATA : 1219

### 14.2 Proper shipping name

ADR : ISOPROPYL ALCOHOL, ISOPROPANOL  
RID : ISOPROPYL ALCOHOL, ISOPROPANOL  
IMDG : ISOPROPYL ALCOHOL, ISOPROPANOL  
IATA : ISOPROPANOL

### 14.3 Transport hazard class

ADR : 3  
RID : 3  
IMDG : 3  
IATA : 3

### 14.4 Packing group

**ADR**  
Packaging group : II  
Classification Code : F1  
Hazard identification No : 33  
Labels : 3  
Tunnel restriction code : (D/E)

**RID**  
Packaging group : II  
Classification Code : F1  
Hazard identification No : 33  
Labels : 3

**IMDG**  
Packaging group : II  
Labels : 3  
EmS Number : F-E, S-D

**IATA**  
Packing instruction (cargo aircraft) : 307  
Packaging group : II  
Labels : 3

### 14.5 Environmental hazards

**ADR**  
Environmentally hazardous : No

**RID**  
Environmentally hazardous : No

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## IMDG

Marine pollutant : No

## IATA

Environmentally hazardous : No

### 14.6 Special precautions for user

No data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Z

## 15. Regulatory information

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

Major Accident Hazard : 96/82/EC  
Legislation : Highly flammable  
Quantity 1: 5,000 t  
Quantity 2: 50,000 t

#### Notification status

EINECS : On the inventory, or in compliance with the inventory  
TSCA : On TSCA Inventory  
AUSTR : On the inventory, or in compliance with the inventory  
DSL : All components of this product are on the Canadian DSL list.  
ENCS : On the inventory, or in compliance with the inventory  
KOREA : On the inventory, or in compliance with the inventory  
PHIL : On the inventory, or in compliance with the inventory  
CHINA : On the inventory, or in compliance with the inventory  
ISHL : On the inventory, or in compliance with the inventory  
NZIOC : On the inventory, or in compliance with the inventory

### 15.2 Chemical Safety Assessment

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

## 16. Other information

### Full text of R-phrases referred to under sections 2 and 3

R11 : Highly flammable.  
R36 : Irritating to eyes.  
R67 : Vapours may cause drowsiness and dizziness.

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## Full text of H-Statements referred to under sections 2 and 3.

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

## Further information

Other information : || Indicates updated section.  
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.