

# Safety data sheet according to 1907/2006/EC, Article 31

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Printing date 13.04.2021 Revision: 13.04.2021 Version number 13.02

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: 2-Propanol

· Article number: 1090

· CAS Number:

67-63-0

EC number: 200-661-7

· Index number: 603-117-00-0

· Application of the substance / the mixture

Molecular biology Biochemistry Chemical analytics Laboratory chemicals

- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

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- · 1.4 Emergency telephone number:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

## **SECTION 2: Hazards identification**

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

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· Hazard pictograms





GHS02 GHS07

· Signal word Danger

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eve 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.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

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

with water [or 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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.vPvB: Not applicable.

#### **SECTION 3: Composition/information on ingredients**

· 3.1 Substances

· CAS No. Description

67-63-0 2-Propanol

Identification number(s)

· EC number: 200-661-7

· Index number: 603-117-00-0

# **SECTION 4: First aid measures**

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

Immediately remove any clothing soiled by the product.

- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:

make victim drink water (maximum of 2 drinking glasses)

Risk of aspiration!

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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

No further relevant information available.

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# **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Combustible.

Forms explosive mixtures with air at ambient temperatures.

Vapours ara heavier than air and may spread along floors.

Beware of backfiring.

- 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Contain escaping vapours with water.

## **SECTION 6: Accidental release measures**

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

Avoid substance contact.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Keep ignition sources away - Do not smoke.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

Avoid substance contact.

Do not inhale steams/aerosols.

- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Clean up affected area.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## **SECTION 7: Handling and storage**

#### · 7.1 Precautions for safe handling

Avoid generation of vapours/aerosols.

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility:

Away from sources of ignition and heat.

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#### · Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Open receptacle only under localised extractor facilities.

Store receptacle in a well ventilated area.

Store only outside or in explosion proof rooms.

Store under lock and key and with access restricted to technical experts or their assistants only.

- · Recommended storage temperature: < +25°C
- · Storage class: 3
- · 7.3 Specific end use(s) No further relevant information available.

## **SECTION 8: Exposure controls/personal protection**

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

### 67-63-0 2-Propanol

WEL Short-term value: 1250 mg/m³, 500 ppm Long-term value: 999 mg/m³, 400 ppm

#### · DNELs

Oral	Long-term - systemic effects, general population	26 mg/kg
Dermal	Long-term - systemic effects, worker	888 mg/kg
	Long term - systemic effects, general population	319 mg/kg
Inhalative	Long-term - systemic effects, worker	500 mg/m3
	Long-term - systemic effects, general population	89 mg/m3

#### · PNECs

Aquatic compartment - freshwater	140.9 mg/L
Aquatic compartment - marine water	140.9 mg/L
Aquatic compartment - sediment in freshwater	552 mg/kg
Aquatic compartment - sediment in marine water	552 mg/kg
Terrestrial compartment - soil	28 mg/kg

- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- Appropriate engineering controls No further data; see item 7.
- · Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

## · Respiratory protection:

Use suitable respiratory protective device only when aerosol or mist is formed. Filter A

· Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: > 0.4 mm

Value for the permeation: Level ≥ 480 min

· As protection from splashes gloves made of the following materials are suitable:

Chloroprene rubber, CR

Recommended thickness of the material: ≥ 0.65 mm

Value for the permeation: Level  $\geq$  120 min

· Eye/face protection



Tightly sealed goggles

· Body protection:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazourdous substances handled.

## **SECTION 9: Physical and chemical properties**

- · 9.1 Information on basic physical and chemical properties
- · General Information

· Physical state Fluid · Colour: Colourless · Odour: Alcohol-like · Odour threshold: Not determined.

Melting point/freezing point: -89.5 °C

· Boiling point or initial boiling point and boiling

range 82 °C

· Flammability Not applicable.

Lower and upper explosion limit

· Lower: 2 Vol % · Upper: 13.4 Vol % 12-13 °C · Flash point: **Auto-ignition temperature:** Not determined. Decomposition temperature: Not determined. Not determined.

· Viscosity:

· Kinematic viscosity Not determined. · Dynamic at 20 °C: 2.43 mPas

· Solubility

· water: Fully miscible. Partition coefficient n-octanol/water (log value) 0.04999286 · Vapour pressure at 20 °C: 43 hPa

· Density and/or relative density

· Density at 20 °C: 0.785 g/cm<sup>3</sup> · Relative density Not determined. · Vapour density Not determined.

· 9.2 Other information

· Appearance:

· Form: Fluid

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Important information on protection of health and environment, and on safety.

• Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures are possible.

· Solvent content:

· **VOC (EC)** 100 %

· Change in condition

• Evaporation rate Not determined.

· Information with regard to physical hazard classes

Explosives Void
Flammable gases Void
Aerosols Void
Oxidising gases Void
Gases under pressure Void

· Flammable liquids Highly flammable liquid and vapour.

Flammable solids
Self-reactive substances and mixtures
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Void

· Substances and mixtures, which emit

flammable gases in contact with water

Oxidising liquids
Oxidising solids
Organic peroxides
Corrosive to metals
Oesensitised explosives
Void

### **SECTION 10: Stability and reactivity**

· 10.1 Reactivity

Reacts with strong oxidising agents.

Reacts with strong acids.

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

Warming. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

· 10.3 Possibility of hazardous reactions

Forms explosive gas mixture with air.

Explosive reaction with oxidising agents such as calcium chlorate and or peroxides.

- 10.4 Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition.
- · 10.5 Incompatible materials:

Explosive reaction with oxidising agents such as calcium chlorate and or peroxides.

strong acids

strong oxidants

aluminium

alkali metals

**Amines** 

iron

· 10.6 Hazardous decomposition products: In the event of fire: See chapter 5

## **SECTION 11: Toxicological information**

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

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· LD/LC50 values relevant for classification:

· Components		Туре	Value	Species
Oral	LD50	>2000 mg/kg (rat)		
Dermal	LD50	>2000 mg/kg (rabbit)		

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity

NOAEL (Fertility) 46.5 mg/kg bw/day (rat)

STOT-single exposure

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties Substance is not listed.

## **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.

Type of test Effective concentration	Method	Assessment
EC50/72 h >100 mg/l (Algae)		
EC50/48 h >100 mg/l (daphnia magna)		
LC50/48 h >100 mg/l (fish)		

- 12.2 Persistence and degradability Easily biodegradable
- · 12.3 Bioaccumulative potential 0.05 log Pow
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- 12.7 Other adverse effects
- Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

# **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- · Recommendation

Chemicals must be disposed of in compliance with the respective national regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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 $\hbox{(Contd. of page 7)}\\ \hbox{Packagings that may not be cleansed are to be disposed of in the same manner as the product.}$ 

SECTION 14: Transport information	
<u> </u>	
· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1219
· 14.2 UN proper shipping name · ADR, IMDG, IATA	ISOPROPANOL (ISOPROPYL ALCOHOL)
· 14.3 Transport hazard class(es)	
· ADR	
Class	3 (F1) Flammable liquids.
Label	3
· IMDG, IATA	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	Not applicable.
<ul> <li>14.6 Special precautions for user</li> <li>Hazard identification number (Kemler code):</li> <li>EMS Number:</li> <li>Stowage Category</li> </ul>	Warning: Flammable liquids. : 33 F-E,S-D B
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II
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## **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50000 t
- · National regulations:
- · Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57 Substance is not listed.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

#### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

\* Data compared to the previous version altered.

#### **Annex: Exposure scenario**

- · Short title of the exposure scenario Formulation and packing/repacking of substances and mixtures
- Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · Conditions of use
- Duration and frequency 5 workdays/week.
- · Physical parameters
- · Physical state Fluid
- Concentration of the substance in the mixture Raw material.
- · Other operational conditions
- · Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure

Avoid contact with eyes.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

· Other operational conditions affecting consumer exposure No special measures required.

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- Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- Risk management measures
- · Worker protection
- Organisational protective measures No special measures required.
- Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Tightly sealed goggles

- Measures for consumer protection Ensure adequate labelling.
- **Environmental protection measures**
- · Water No special measures required.
- Disposal measures Ensure that waste is collected and contained.
- · Disposal procedures

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Waste type Partially emptied and uncleaned packaging
- · Exposure estimation
- · Consumer Not relevant for this Exposure Scenario.
- Guidance for downstream users No further relevant information available.

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