

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

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

1.1 Product identifier

Identification of the substance 2-Propanol technical grade
CAS number 67-63-0
Alternative number(s) LC-7339

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

Relevant identified uses General use

1.3 Details of the supplier of the safety data sheet

NeoFroxx GmbH
Marie-Curie-Str. 3
D-64683 Einhausen
Germany

Telephone: +49 (6251) 989 24 - 0
e-mail: info@neofroxx.com
Website: neofroxx.com

e-mail (competent person) info@neofroxx.com (neoFroxx GmbH)

1.4 Emergency telephone number

Emergency information service This number is only available during the following office hours: Mon-Fri 9 a.m. - 5 p.m.

| Poison centre | | | | | |
|----------------|--------------------------------------|------------------|-----------|---------|-------------------------------|
| Country | Name | Postal code/city | Telephone | Telefax | Opening hours |
| United Kingdom | National Poisons Information Service | | 111 | | Mon - Fri 09:00 AM - 05:00 PM |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class | Category | Hazard class and category | Hazard statement |
|---------|---|----------|---------------------------|------------------|
| 2.6 | flammable liquid | 2 | Flam. Liq. 2 | H225 |
| 3.3 | serious eye damage/eye irritation | 2 | Eye Irrit. 2 | H319 |
| 3.8D | specific target organ toxicity - single exposure (narcotic effects, drowsiness) | 3 | STOT SE 3 | H336 |

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling

- Signal word danger

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

- Pictograms

GHS02, GHS07



- 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/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container to industrial combustion plant.

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

| | |
|--------------------------|---------------------------------|
| Name of substance | 2-Propanol technical grade |
| Identifiers | |
| CAS No | 67-63-0 |
| EC No | 200-661-7 |
| Index No (GB CLP) | 603-117-00-0 |
| Purity | 100 % |
| Molecular formula | C ₃ H ₈ O |
| Molar mass | 60.1 g/mol |

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Narcotic effects.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) | | | | | | | | | | | |
|--|---------------|---------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|-----------|
| Country | Name of agent | CAS No | Identifier | TWA [ppm] | TWA [mg/m ³] | STEL [ppm] | STEL [mg/m ³] | Ceiling-C [ppm] | Ceiling-C [mg/m ³] | Notation | Source |
| GB | propan-2-ol | 67-63-0 | WEL | 400 | 999 | 500 | 1,250 | | | | EH40/2005 |

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur
STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours
time-weighted average (unless otherwise specified)

Human health values

| Relevant DNELs and other threshold levels | | | | |
|---|-----------------------|------------------------------------|-------------------|----------------------------|
| Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
| DNEL | 500 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| DNEL | 888 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |

Environmental values

| Relevant PNECs and other threshold levels | | | | |
|---|-----------------|-----------------------|------------------------------|------------------------------|
| Endpoint | Threshold level | Organism | Environmental compartment | Exposure time |
| PNEC | 140.9 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| PNEC | 140.9 mg/l | aquatic organisms | marine water | short-term (single instance) |
| PNEC | 2,251 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| PNEC | 552 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| PNEC | 552 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| PNEC | 28 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Type of material

NBR: acrylonitrile-butadiene rubber

- Material thickness

min. 0.40 mm

- Breakthrough times of the glove material

>480 minutes (permeation: level 6)

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | liquid |
| Colour | colourless |
| Odour | characteristic |
| Melting point/freezing point | -89.5 °C |
| Boiling point or initial boiling point and boiling range | 82.3 °C at 1 atm |
| Flammability | flammable liquid in accordance with GHS criteria |
| Lower and upper explosion limit | 2 vol% - 13 vol% |
| Flash point | 12 °C |
| Auto-ignition temperature | 399 °C (ECHA) (auto-ignition temperature (liquids and gases)) |
| Decomposition temperature | not relevant |
| pH (value) | not determined |
| Kinematic viscosity | not determined |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

Solubility(ies)

| | |
|------------------|----------------------------|
| Water solubility | miscible in any proportion |
|------------------|----------------------------|

Partition coefficient

| | |
|---|---------------------|
| Partition coefficient n-octanol/water (log value) | 0.05 (25 °C) (ECHA) |
|---|---------------------|

| | |
|-----------------|-------------------|
| Vapour pressure | 60.2 hPa at 25 °C |
|-----------------|-------------------|

Density and/or relative density

| | |
|-------------------------|---|
| Density | 0.79 g/cm ³ at 20 °C |
| Relative vapour density | information on this property is not available |

| | |
|--------------------------|-----------------------|
| Particle characteristics | not relevant (liquid) |
|--------------------------|-----------------------|

9.2 Other information

| | |
|---|------------------------------------|
| Information with regard to physical hazard classes | there is no additional information |
|---|------------------------------------|

Other safety characteristics

| | |
|----------------|---------------------------------|
| Miscibility | Completely miscible with water. |
| Liquid content | 100 % |

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". It's a reactive substance. The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

10.5 Incompatible materials

Oxidisers, Rubber articles, Plastic

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Biodegradation

The substance is readily biodegradable.

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

| Process of degradability | | |
|--------------------------|------------------|------|
| Process | Degradation rate | Time |
| oxygen depletion | 53 % | 5 d |

12.3 Bioaccumulative potential

Data are not available.

| | |
|----------------------------------|---------------------|
| n-octanol/water (log KOW) | 0.05 (25 °C) (ECHA) |
|----------------------------------|---------------------|

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number

| | |
|------------------|---------|
| ADR/RID | UN 1219 |
| IMDG-Code | UN 1219 |
| ICAO-TI | UN 1219 |

14.2 UN proper shipping name

| | |
|------------------|-------------|
| ADR/RID | ISOPROPANOL |
| IMDG-Code | ISOPROPANOL |
| ICAO-TI | Isopropanol |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

14.3 Transport hazard class(es)

| | |
|-----------|---|
| ADR/RID | 3 |
| IMDG-Code | 3 |
| ICAO-TI | 3 |

14.4 Packing group

| | |
|-----------|----|
| ADR/RID | II |
| IMDG-Code | II |
| ICAO-TI | II |

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user


Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments


The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - Additional information

| | |
|---|-----|
| Classification code | F1 |
| Danger label(s) | 3 |
|  | |
| Special provisions (SP) | 601 |
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 1 L |
| Transport category (TC) | 2 |
| Tunnel restriction code (TRC) | D/E |
| Hazard identification No | 33 |
| Emergency Action Code | 2YE |



Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) - Additional information

| | |
|---|-----|
| Classification code | F1 |
| Danger label(s) | 3 |
|  | |
| Special provisions (SP) | 601 |
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 1 L |
| Transport category (TC) | 2 |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

| | |
|---|----------|
| Hazard identification No | 33 |
| International Maritime Dangerous Goods Code (IMDG) - Additional information | |
| Marine pollutant | - |
| Danger label(s) | 3 |
|  | |
| Special provisions (SP) | - |
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 1 L |
| EmS | F-E, S-D |
| Stowage category | B |
| International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information | |
| Danger label(s) | 3 |
|  | |
| Special provisions (SP) | A180 |
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 1 L |

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Deco-Paint Directive

| | |
|-------------|-------|
| VOC content | 100 % |
|-------------|-------|

Industrial Emissions Directive (IED)

| | |
|-------------|-------|
| VOC content | 100 % |
|-------------|-------|

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

Water Framework Directive (WFD)

not listed

Regulation on persistent organic pollutants (POP)

Not listed.

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

National inventories

| Country | Inventory | Status |
|---------|------------|---------------------|
| EU | REACH Reg. | substance is listed |

Legend

REACH Reg. REACH registered substances

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|---|---|-----------------|
| 1.1 | Registration number (REACH): 01-2119457558-25-xxxx | | yes |
| 1.1 | | CAS number: 67-63-0 | yes |
| 2.3 | | Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$. | yes |
| 3.1 | REACH Reg. No: 01-2119457558-25-xxxx | | yes |
| 3.1 | | CAS No: 67-63-0 | yes |
| 9.1 | Appearance | | yes |
| 9.1 | Other safety parameters | | yes |
| 9.1 | Flammability (solid, gas): not relevant, (fluid) | Flammability: flammable liquid in accordance with GHS criteria | yes |
| 9.1 | Explosive limits | Lower and upper explosion limit: 2 vol% - 13 vol% | yes |
| 9.1 | Evaporation rate: not determined | | yes |
| 9.1 | Lower explosion limit (LEL): 2 vol% | | yes |
| 9.1 | Upper explosion limit (UEL): 13 vol% | | yes |
| 9.1 | | Decomposition temperature: not relevant | yes |
| 9.1 | | Kinematic viscosity: not determined | yes |
| 9.1 | | Density and/or relative density | yes |
| 9.1 | Vapour density: this information is not available | | yes |
| 9.1 | Viscosity: not determined | | yes |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|--|---|-----------------|
| 9.1 | Explosive properties: none | | yes |
| 9.1 | Oxidising properties: none | | yes |
| 9.1 | | Relative vapour density: information on this property is not available | yes |
| 9.1 | | Particle characteristics: not relevant (liquid) | yes |
| 9.2 | | Information with regard to physical hazard classes: there is no additional information | yes |
| 9.2 | | Other safety characteristics | yes |
| 9.2 | | Miscibility: Completely miscible with water. | yes |
| 9.2 | Temperature class (EU, acc. to ATEX): T2 (maximum permissible surface temperature on the equipment: 300°C) | | yes |
| 11.2 | | Information on other hazards: There is no additional information. | yes |
| 12.2 | Biodegradation: The substance is readily biodegradable. The relevant substances of the mixture are readily biodegradable. | Biodegradation: The substance is readily biodegradable. | yes |
| 12.5 | Results of PBT and vPvB assessment: Data are not available. | Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB. | yes |
| 12.6 | Endocrine disrupting potential: Not listed. | Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$. | yes |
| 12.7 | Other adverse effects | Other adverse effects: Data are not available. | yes |
| 14.1 | UN number: 1219 | UN number or ID number | yes |
| 14.1 | | ADR/RID: UN 1219 | yes |
| 14.1 | | IMDG-Code: UN 1219 | yes |
| 14.1 | | ICAO-TI: UN 1219 | yes |
| 14.2 | UN proper shipping name: ISOPROPANOL | UN proper shipping name | yes |
| 14.2 | | ADR/RID: ISOPROPANOL | yes |
| 14.2 | | IMDG-Code: ISOPROPANOL | yes |
| 14.2 | | ICAO-TI: Isopropanol | yes |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|---|---|-----------------|
| 14.3 | Class: 3 (flammable liquids) | | yes |
| 14.3 | | ADR/RID: 3 | yes |
| 14.3 | | IMDG-Code: 3 | yes |
| 14.3 | | ICAO-TI: 3 | yes |
| 14.4 | Packing group: II (substance presenting medium danger) | Packing group | yes |
| 14.4 | | ADR/RID: II | yes |
| 14.4 | | IMDG-Code: II | yes |
| 14.4 | | ICAO-TI: II | yes |
| 14.7 | UN number: 1219 | | yes |
| 14.7 | Proper shipping name: ISOPROPANOL | | yes |
| 14.7 | Class: 3 | | yes |
| 14.7 | Packing group: II | | yes |
| 14.7 | | Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) - Additional information | yes |
| 14.7 | | Classification code: F1 | yes |
| 14.7 | | Danger label(s): 3 | yes |
| 14.7 | | Danger label(s): change in the listing (table) | yes |
| 14.7 | | Special provisions (SP): 601 | yes |
| 14.7 | | Excepted quantities (EQ): E2 | yes |
| 14.7 | | Limited quantities (LQ): 1 L | yes |
| 14.7 | | Transport category (TC): 2 | yes |
| 14.7 | | Hazard identification No: 33 | yes |
| 14.7 | UN number: 1219 | | yes |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|---|--|-----------------|
| 14.7 | Proper shipping name: ISOPROPANOL | | yes |
| 14.7 | Class: 3 | | yes |
| 14.7 | Packing group: II | | yes |
| 14.7 | UN number: 1219 | | yes |
| 14.7 | Proper shipping name: Isopropanol | | yes |
| 14.7 | Class: 3 | | yes |
| 14.7 | Packing group: II | | yes |
| 15.1 | Restrictions according to REACH, Annex XVII | | yes |
| 15.1 | | Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table) | yes |
| 15.1 | List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list: not listed | | yes |
| 15.1 | | Regulation on persistent organic pollutants (POP): Not listed. | yes |
| 15.1 | | National inventories: change in the listing (table) | yes |
| 16 | | Abbreviations and acronyms: change in the listing (table) | yes |
| 16 | Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU. Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA). | Key literature references and sources for data: Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA). | yes |

Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|-----------|---|
| ADR | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DNEL | Derived No-Effect Level |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

| Abbr. | Descriptions of used abbreviations |
|-----------|---|
| EH40/2005 | EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| GB CLP | The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended) |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| ICAO-TI | Technical instructions for the safe transport of dangerous goods by air |
| IMDG | International Maritime Dangerous Goods Code |
| IMDG-Code | International Maritime Dangerous Goods Code |
| index No | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| STEL | Short-term exposure limit |
| TWA | Time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and very Bioaccumulative |
| WEL | Workplace exposure limit |

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in section 2 and 3)

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

2-Propanol technical grade

Version number: GHS 2.0
Replaces version of: 2020-09-17 (GHS 1)

Revision: 2023-10-25

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product. The information is intended to give you guidelines for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The information is not transferable to other products. Insofar as the product is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise.