

2-Propanol

673773-4L

Version 1.3

Revision Date 07.09.2018

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

1.1. Product identifier

Product name : 2-Propanol
SDS-number : 000000020418
Type of product : Substance
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.
Chemical name : Propan-2-ol
Index-No. : 603-117-00-0
REACH Registration Number : 01-2119457558-25

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

Use of the Substance/Mixture : Laboratory chemicals
Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
30926 Seelze
Germany
Telephone : (49) 5137-999 0
Telefax : (49) 5137-999 123
For further information, please contact: PMTEU Product Stewardship:
SafetyDataSheet@Honeywell.com
Honeywell International, Inc.
115 Tabor Road
Morris Plains, NJ 07950-2546
USA

1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)
Country based Poison Control Center : see chapter 15.1

SECTION 2: Hazards identification

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2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

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

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms : 

Signal word : Danger

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

Precautionary statements : P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ eye protection/ face protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep 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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

Has a degreasing effect on the skin.

SECTION 3: Composition/information on ingredients

3.1. Substance

| Chemical name | CAS-No. | Classification 1272/2008 | Concentration | Remarks |
|---------------|---------|--------------------------|---------------|---------|
|---------------|---------|--------------------------|---------------|---------|

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| | Index-No. REACH Registration Number EC-No. | | | |
|-------------|--|---|-------|----|
| Propan-2-ol | 67-63-0 603-117-00-0 01-2119457558-25 200-661-7 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 | 100 % | 1* |

1* - For specific concentration limits see Annexes of 1272/2008

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.

Skin contact:

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician if irritation develops or persists.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.

Ingestion:

Rinse mouth with water. Do NOT induce vomiting. Call a physician immediately.

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

no data available

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

no data available

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See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Alcohol-resistant foam

Carbon dioxide (CO₂)

Dry chemical

Cool closed containers exposed to fire with water spray.

Extinguishing media which shall not be used for safety reasons:

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Flammable.

Vapours may form explosive mixtures with air.

Vapours are heavier than air and may spread along floors.

Vapors may travel to areas away from work site before igniting/flashing back to vapor source.

In case of fire hazardous decomposition products may be produced such as:

Carbon monoxide

Carbon dioxide (CO₂)

5.3. Advice for firefighters

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

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Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary. Use explosion-proof equipment.

Advice on protection against fire and explosion:

Take measures to prevent the build up of electrostatic charge. Use only in explosion-proof areas. The heavy vapours can overcome a considerable distance up to the source of ignition. Keep away from sources of ignition - No smoking.

Hygiene measures:

When using do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Keep working clothes separately. Remove and wash contaminated clothing before re-use. Do not breathe dust or spray mist. Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

Store in original container. Keep container tightly closed and in a well-ventilated place. Keep away from direct sunlight.

7.3. Specific end use(s)

no additional data available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

| Components | Basis / Value type | Value / Form of exposure | Exceeding Factor | Remarks |
|-------------|--------------------|------------------------------------|------------------|---------|
| Propan-2-ol | EH40 WEL STEL | 1.250 mg/m ³ 500 ppm | | |
| Propan-2-ol | EH40 WEL TWA | 999 mg/m ³ 400 ppm | | |

STEL - Short term exposure limit
TWA - Time weighted average

DNEL/ PNEC-Values

| Component | End-use/impact | Exposure duration | Value | Exposure routes | Remarks |
|-------------|--|-------------------|-----------------------|-----------------|---------|
| Propan-2-ol | Consumers / Long-term systemic effects | | 26mg/kg bw/d | Ingestion | |
| Propan-2-ol | Consumers / Long-term systemic effects | | 319 mg/kg | Skin contact | |
| Propan-2-ol | Workers / Long-term systemic effects | | 888 mg/kg | Skin contact | |
| Propan-2-ol | Consumers / Long-term systemic effects | | 89 mg/m ³ | Inhalation | |
| Propan-2-ol | Workers / Long-term systemic effects | | 500 mg/m ³ | Inhalation | |

| Component | Environmental compartment / Value | Remarks |
|-------------|-----------------------------------|---------|
| Propan-2-ol | Fresh water: 140,9 mg/l | |

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| | | |
|-------------|-----------------------------------|--|
| Propan-2-ol | Marine water: 140,9 mg/l | |
| Propan-2-ol | Fresh water sediment: 552 mg/kg | |
| Propan-2-ol | Marine sediment: 552 mg/kg | |
| Propan-2-ol | Soil: 28 mg/kg | |
| Propan-2-ol | Sewage treatment plant: 2251 mg/l | |

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Do not breathe vapours or spray mist.

Engineering measures

Use with local exhaust ventilation.

Prevent vapour buildup by providing adequate ventilation during and after use.

Personal protective equipment

Respiratory protection:

In the case of vapour formation use a respirator with an approved filter.

Hand protection:

Glove material: butyl-rubber

Break through time: > 480 min

Glove thickness: 0,7 mm

Butoject® 898

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124

Eichenzell, Vertrieb@kcl.de

Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer´s directions for use should be observed because of great diversity of types .

Eye protection:

Safety goggles

Skin and body protection:

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Flame retardant antistatic protective clothing.

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | |
|------------------------------|---|---|
| Form | : | liquid |
| Colour | : | colourless |
| Odour | : | alcohol-like |
| molecular weight | : | 60,11 g/mol |
| Melting point/range | : | -90 °C |
| Boiling point/boiling range | : | 77 - 83 °C at 1.013 hPa |
| Flash point | : | 12 °C Method: DIN 51755 |
| Ignition temperature | : | ca. 425 °C |
| Lower explosion limit | : | 2 %(V) |
| Upper explosion limit | : | 12 %(V) |
| Vapour pressure | : | ca. 42 hPa at 20 °C |
| Density | : | 0,784 - 0,786 g/cm ³ at 20 °C |
| Viscosity, dynamic | : | ca. 2,5 mPa.s at 20 °C |
| Viscosity, kinematic | : | no data available |
| pH | : | neutral |
| Water solubility | : | completely miscible |
| Solubility in other solvents | : | Soluble in most organic solvents |

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Partition coefficient: n-
octanol/water : log Pow 0,05
at: 25 °C

Relative vapour density : no data available

Evaporation rate : no data available

9.2 Other Information

no additional data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.
Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Heat, flames and sparks.
Keep away from direct sunlight.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

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LD50

Species: Rat
Value: 5.840 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity:

no data available

Acute inhalation toxicity:

LC50
Species: Rat
Value: > 10000 ppm
Exposure time: 6 h
Method: OECD Test Guideline 403

Skin irritation:

Species: Rabbit
Result: slight irritation
According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Eye irritation:

Species: Rabbit
Result: irritating
Method: OECD Test Guideline 405

Respiratory or skin sensitisation:

Buehler Test
Species: Guinea pig
Result: non-sensitizing
Method: OECD Test Guideline 406

Carcinogenicity:

Note: Not classified due to data which are conclusive although insufficient for classification.

Germ cell mutagenicity:

Test Method: In vitro mammalian cell gene mutation test
Cell type: Chinese Hamster Ovary Cells
Metabolic activation: with and without metabolic activation
Result: negative
Method: OECD Test Guideline 476

Test Method: Ames test
Metabolic activation: with and without metabolic activation
Result: negative
Method: OECD Test Guideline 471

Test Method: Micronucleus test

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Species: Mouse
Method: OECD Test Guideline 474
Result: negative

Aspiration hazard:
no data available

Other information:
Solvent vapours have a narcotic effect if inhaled in high concentrations.

SECTION 12: Ecological information

12.1. Toxicity

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

Toxicity to aquatic plants:
Not classified due to data which are conclusive although insufficient for classification.

Toxicity to Microorganisms:
static test
Species: Pseudomonas putida
Value: 1.050 mg/l
Exposure time: 16 h
Method: DIN 38412

Toxicity to aquatic invertebrates:
EC50
static test
Species: Daphnia magna (Water flea)
Value: > 10.000 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

12.2. Persistence and degradability

Biodegradability:
Readily biodegradable.

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12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

ADR/RID

UN Number : 1219
Description of the goods : ISOPROPANOL
Class : 3
Packaging group : II
Classification Code : F1
Hazard Identification : 33
Number
ADR/RID-Labels : 3
Environmentally hazardous : no

IATA

UN Number : 1219
Description of the goods : Isopropanol

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Class : 3
Packaging group : II
Hazard Labels : 3

IMDG

UN Number : 1219
Description of the goods : ISOPROPANOL
Class : 3
Packaging group : II
Hazard Labels : 3
EmS Number : F-E, S-D
Marine pollutant : no

SECTION 15: Regulatory information

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

| Basis | Value | Remarks |
|--|---|---------|
| Directive 2012/18/EC Listed in Regulation : P5c: FLAMMABLE LIQUIDS Number in Regulation: 1.2.5.3 | Amount 1: 5.000.000 kg Amount 2: 50.000.000 kg | |

Poison Control Center

| Country | Phone Number |
|----------------|------------------------------|
| Austria | +4314064343 |
| Belgium | 070 245245 |
| Bulgaria | (+)35929154233 |
| Croatia | (+3851)23-48-342 |
| Cyprus | no data available |
| Czech Republic | +420224919293; +420224915402 |
| Denmark | 82121212 |
| Estonia | 16662; (+372)6269390 |
| Finland | 9471977 |
| France | +33(0)145425959 |
| Greece | no data available |
| Hungary | (+36-80)201-199 |
| Iceland | 5432222 |

| Country | Phone Number |
|-----------------|--|
| Liechtenstein | no data available |
| Lithuania | +370532362052 |
| Luxembourg | 070245245; (+352)80002-5500 |
| Malta | no data available |
| Netherlands | 030-2748888 |
| Norway | 22591300 |
| Poland | no data available |
| Portugal | 808250143 |
| Romania | no data available |
| Slovakia (NTIC) | +421 2 54 774 166 |
| Slovenia | no data available |
| Spain | +34915620420 |
| Sweden | 112 (begär Giftinformation);+46104566786 |

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| | | | |
|--------------------|------------------------|----------------|-------------------|
| Ireland | +353(1)8092166 | Switzerland | 145 |
| Italy | +39 0649906140 | United Kingdom | no data available |
| Germany | Berlin : 030/19240 | | |
| | Bonn : 0228/19240 | | |
| | Erfurt : 0361/730730 | | |
| | Freiburg : 0761/19240 | | |
| | Göttingen : 0551/19240 | | |
| | Homburg : 06841/19240 | | |
| | Mainz : 06131/19240 | | |
| Munich : 089/19240 | | | |
| Latvia | +37167042473 | | |

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

Text of H-statements referred to under heading 3

| | | | |
|-------------|---|------|-------------------------------------|
| Propan-2-ol | : | H225 | Highly flammable liquid and vapour. |
| | | H319 | Causes serious eye irritation. |
| | | H336 | May cause drowsiness or dizziness. |

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very bioaccumulative substance
PBT Persistent, bioaccumulative und toxic substance

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 a 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. Final determination of suitability of any material is the sole responsibility of the user.
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