

Safety Data Sheet

according to UK REACH Regulation

Potassium Chloride Solution, alkaline with 1,5 % NaCl

Revision date: 28.07.2023

Product code: 18075.xxxxx

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

1.1. Product identifier

Potassium Chloride Solution, alkaline with 1,5 % NaCl

UFI: VU1M-K1KP-400A-7T26

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

Use of the substance/mixture

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: MORPHISTO GmbH
Street: Schumannstr. 144
Place: D-63069 Offenbach
Telephone: +49 (0) 69 / 400 3019-60 Telefax: +49 (0) 69 / 400 3019-64
E-mail: info@morphisto.de
Contact person: Morphisto GmbH
E-mail: gefahrstoffmanagement@morphisto.de
Internet: http://www.morphisto.de

1.4. Emergency telephone number:

Morphisto GmbH, Tel: +49(0)69 400 3019-60, Mo-Fr.: 09-16 Uhr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Danger

Pictograms:



Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P337+P313 If eye irritation persists: Get medical advice/attention.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

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Pictograms:



2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|--|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 64-17-5 | ethanol | | | 70 - < 75 % |
| | 200-578-6 | 603-002-00-5 | 01-2119457610-43 | |
| | Flam. Liq. 2, Eye Irrit. 2; H225 H319 | | | |
| 67-63-0 | 2-propanol | | | < 1 % |
| | 200-661-7 | 603-117-00-0 | 01-2119457558-25 | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 | | | |
| 78-93-3 | butanone | | | < 1 % |
| | 201-159-0 | 606-002-00-3 | 01-2119457290-43 | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066 | | | |
| 3734-33-6 | Denatoniumbenzoate | | | < 1 % |
| | 223-095-2 | | | |
| | Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3; H332 H302 H315 H318 H412 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|--|-----------|---|-------------|
| Specific Conc. Limits, M-factors and ATE | | | |
| 64-17-5 | 200-578-6 | ethanol | 70 - < 75 % |
| | | inhalation: LC50 = 124,7 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg Eye Irrit. 2; H319: >= 50 - 100 | |
| 67-63-0 | 200-661-7 | 2-propanol | < 1 % |
| | | dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg | |
| 78-93-3 | 201-159-0 | butanone | < 1 % |
| | | dermal: LD50 = >2000 mg/kg; oral: LD50 = 2054 mg/kg | |
| 3734-33-6 | 223-095-2 | Denatoniumbenzoate | < 1 % |
| | | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >2000 mg/kg; oral: ATE = 500 mg/kg | |

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Further Information

This product contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Take off contaminated clothing. Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Remove casualty to fresh air and keep warm and at rest. If unconscious but breathing normally, place in recovery position and seek medical advice. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin irritation, seek medical treatment.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Call a doctor if you feel unwell.

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

Acute effects: Mucous membrane irritation after eye contact or inhalation.

Delayed effects: Impairment of inhibitory functions of the central nervous system, skin redness, nausea after ingestion of large amounts.

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

Treat symptomatically. Percutaneously absorbed and inhaled substance causes next to irritation of affected mucous membranes only an indicated impairment of the inhibitory functions of the central nervous system, clinically recognizable as the beginning of a euphoric stage. At the same time face and skin redness is caused by dilation of peripheral blood vessels in the body.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air. Vapours are heavier than air and will spread at floor level.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO₂). In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Ventilate affected area. (refer to chapter 8.)

For non-emergency personnel

Clear danger zone. Follow emergency plan. Consult an expert.

For emergency responders

Move undamaged containers from immediate hazard area if it can be done safely. Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Do not empty into drains.

6.3. Methods and material for containment and cleaning up**For containment**

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Other information

Ventilate affected area.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Provide adequate ventilation as well as local exhaustion at critical locations. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8). Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Flammable vapours can accumulate in head space of closed systems. Heating causes rise in pressure with risk of bursting. Use only antistatically equipped (spark-free) tools. Wear anti-static footwear and clothing. Have fire-extinguishers in readiness before opening containers.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

Further information on handling

General protection and hygiene measures: refer to chapter 8.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store only in original container. Protect from direct sunlight. Ensure adequate ventilation of the storage area.

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Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. Gas. Explosive substances. Pyrophoric liquids and solids Ammonium nitrate. Self-reactive substances and mixtures: Non-combustible toxic substances. Infectious substances.

Further information on storage conditions

Recommended storage temperature: 15 - 25°C.

7.3. Specific end use(s)

The product is intended for research, analysis and scientific education.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|---------|-----------------------------------|------|-------------------|-----------|---------------|--------|
| 78-93-3 | Butan-2-one (methyl ethyl ketone) | 200 | 600 | | TWA (8 h) | WEL |
| | | 300 | 899 | | STEL (15 min) | WEL |
| 64-17-5 | Ethanol | 1000 | 1920 | | TWA (8 h) | WEL |
| 67-63-0 | Propan-2-ol | 400 | 999 | | TWA (8 h) | WEL |
| | | 500 | 1250 | | STEL (15 min) | WEL |

Biological Monitoring Guidance Values (EH40)

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|---------|-------------|-------------|-----------|---------------|---------------|
| 78-93-3 | Butan-2-one | butan-2-one | 70 µmol/L | urine | Post shift |

DNEL/DMEL values

| CAS No | Substance | DNEL type | Exposure route | Effect | Value |
|---------|------------|--------------------------|----------------|----------|------------------------|
| 64-17-5 | ethanol | Worker DNEL, acute | inhalation | local | 1900 mg/m ³ |
| | | Worker DNEL, long-term | dermal | systemic | 343 mg/kg bw/day |
| | | Worker DNEL, long-term | inhalation | systemic | 950 mg/m ³ |
| | | Consumer DNEL, acute | inhalation | local | 950 mg/m ³ |
| | | Consumer DNEL, long-term | dermal | systemic | 206 mg/kg bw/day |
| | | Consumer DNEL, long-term | inhalation | systemic | 114 mg/m ³ |
| | | Consumer DNEL, long-term | oral | systemic | 87 mg/kg bw/day |
| 67-63-0 | 2-propanol | Worker DNEL, long-term | inhalation | systemic | 500 mg/m ³ |
| | | Consumer DNEL, long-term | inhalation | systemic | 89 mg/m ³ |
| | | Worker DNEL, long-term | dermal | systemic | 888 mg/kg bw/day |
| | | Consumer DNEL, long-term | oral | systemic | 26 mg/kg bw/day |
| | | Consumer DNEL, long-term | dermal | systemic | 319 mg/kg bw/day |

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PNEC values

| CAS No | Substance | Value |
|--|------------|------------|
| Environmental compartment | | |
| 64-17-5 | ethanol | |
| Freshwater | | 0,96 mg/l |
| Freshwater (intermittent releases) | | 2,75 mg/l |
| Marine water | | 0,79 mg/l |
| Marine water (intermittent releases) | | 2,75 mg/l |
| Freshwater sediment | | 3,6 mg/kg |
| Marine sediment | | 2,9 mg/kg |
| Secondary poisoning | | 0,72 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 580 mg/l |
| Soil | | 0,63 mg/kg |
| 67-63-0 | 2-propanol | |
| Freshwater | | 140,9 mg/l |
| Marine water | | 140,9 mg/l |
| Freshwater sediment | | 552 mg/kg |
| Marine sediment | | 552 mg/kg |
| Secondary poisoning | | 160 mg/kg |
| Soil | | 28 mg/kg |

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. Eye glasses with side protection. Tightly sealed safety glasses. EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

In case of prolonged or frequently repeated skin contact: Tested protective gloves are to be worn:

Suitable material: Butyl rubber. 0,5mm. Breakthrough time (maximum wearing time): >480 min.

FKM (fluoro rubber) 0,4mm. Breakthrough time (maximum wearing time): >480 min.

continuous: CR (polychloroprene, chloroprene rubber) 0,5mm.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before using check leak tightness / impermeability.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

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Respiratory protection

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required. Suitable respiratory protective equipment: gas filtering equipment (EN 141). Type: A. Identification color: brown. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Thermal hazards

Flame-retardant protective clothing. Wear anti-static footwear and clothing . .

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

| | | |
|---|------------|------------------------|
| Physical state: | liquid | |
| Colour: | colourless | |
| Odour: | alcoholic | |
| Melting point/freezing point: | | not determined |
| Boiling point or initial boiling point and boiling range: | | 78 °C |
| Flammability: | | not determined |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Flash point: | | 12 °C |
| Auto-ignition temperature: | | 400 °C |
| Decomposition temperature: | | not determined |
| pH-Value: | | not determined |
| Viscosity / kinematic: | | not determined |
| Water solubility: (at 20 °C) | | easily soluble |
| Solubility in other solvents not determined | | |
| Partition coefficient n-octanol/water: | | not determined |
| Vapour pressure: (at 20 °C) | | 58 hPa |
| Vapour pressure: (at 50 °C) | | 293 hPa |
| Density (at 20 °C): | | 0,84 g/cm ³ |
| Relative vapour density: | | not determined |
| Particle characteristics: | | not applicable |

9.2. Other information
Information with regard to physical hazard classes
Explosive properties

The product is not: Explosive. Vapours can form explosive mixtures with air.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate: not determined

SECTION 10: Stability and reactivity

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10.1. Reactivity

Highly flammable. Vapours can form explosive mixtures with air.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Explosion risk in contact with: Oxidizing agents, strong. Nitric acid. Hydrogenium peroxide. Exothermic reactions with: Alkali metals. Alkaline earth metals. Reducing agents, strong. Phosphorus oxides. Peroxides. acetic Anhydride. Nitrates.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Keep away from heat. Protect from direct sunlight. Protect from moisture. In use may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

Strong acid Oxidizing agents. Alkali metals. Alkaline earth metals. Peroxides. Phosphorus oxides. Nitrogen oxides (NOx). Hydrogenium peroxide. Nitric acid. Hydrochloric acid. sulphuric acid Perchlorates. Chromium oxides. Acid chlorides. plastic and rubber.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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| CAS No | Chemical name | | | | |
|-----------|-------------------------|---------------|----------|--------|----------------|
| | Exposure route | Dose | Species | Source | Method |
| 64-17-5 | ethanol | | | | |
| | oral | LD50 mg/kg | >5000 | Rat | ECHA Dossier |
| | dermal | LD50 mg/kg | >2000 | Rabbit | ECHA Dossier |
| | inhalation (4 h) vapour | LC50 mg/l | 124,7 | Rat | ECHA Dossier |
| 67-63-0 | 2-propanol | | | | |
| | oral | LD50 mg/kg | >5000 | Rat | ECHA Dossier |
| | dermal | LD50 mg/kg | >5000 | Rabbit | ECHA Dossier |
| 78-93-3 | butanone | | | | |
| | oral | LD50 mg/kg | 2054 | Ratte | SDB Lieferant |
| | dermal | LD50 mg/kg | >2000 | Rabbit | ECHA Dossier |
| 3734-33-6 | Denatoniumbenzoate | | | | |
| | oral | ATE mg/kg | 500 | | |
| | dermal | LD50 mg/kg | >2000 | Rat | suppliers SDS. |
| | inhalation vapour | ATE | 11 mg/l | | |
| | inhalation dust/mist | ATE | 1,5 mg/l | | |

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

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

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

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| CAS No | Chemical name | | | | | |
|-----------|--------------------------|---------------|-----------|---------|---|------------------------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 64-17-5 | ethanol | | | | | |
| | Acute fish toxicity | LC50 mg/l | 14200 | 96 h | Pimephales promelas (fathead minnow) | ECHA Dossier |
| | Acute algae toxicity | ErC50 | 275 mg/l | 72 h | Chlorella vulgaris | ECHA Dossier |
| | Acute crustacea toxicity | EC50 mg/l | 5012 | 48 h | Ceriodaphnia dubia (water flea) | ECHA Dossier |
| | Crustacea toxicity | NOEC | 9,6 mg/l | 9 d | Daphnia magna | ECHA Dossier |
| 67-63-0 | 2-propanol | | | | | |
| | Acute fish toxicity | LC50 mg/l | 9640 | 96 h | Pimephales promelas | ECHA Dossier OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | 1800 | 96 h | Scenedesmus quadricauda | ECHA Dossier |
| | Acute crustacea toxicity | EC50 mg/l | >10000 | 48 h | Daphnia magna (24h) | ECHA Dossier OECD Guideline 202 |
| 78-93-3 | butanone | | | | | |
| | Acute fish toxicity | LC50 mg/l | 2993 | 96 h | Pimephales promelas | ECHA Dossier OECD 203 |
| | Acute algae toxicity | ErC50 mg/l | 1972 | 72 h | Pseudokirchnerella subcapitata | ECHA Dossier OECD 201 |
| | Acute crustacea toxicity | EC50 | 308 mg/l | 48 h | Daphnia magna | ECHA Dossier OECD 202 |
| 3734-33-6 | Denatoniumbenzoate | | | | | |
| | Acute fish toxicity | LC50 mg/l | >1000 | 96 h | Oncorhynchus mykiss (Rainbow trout) | suppliers SDS. |
| | Acute crustacea toxicity | EC50 | 13 mg/l | 48 h | Daphnia magna (Big water flea) | suppliers SDS. |

12.2. Persistence and degradability

The product has not been tested.

| CAS No | Chemical name | | | |
|---------|---|-------|----|--------------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 64-17-5 | ethanol | | | |
| | other guideline | 84% | 20 | ECHA Dossier |
| | Biodegradable. | | | |
| 67-63-0 | 2-propanol | | | |
| | EU Method C.5/ EU Method C.6 | 53% | 5 | ECHA Dossier |
| | Easily biodegradable (concerning to the criteria of the OECD) | | | |
| 78-93-3 | butanone | | | |
| | | 98% | 28 | ECHA Dossier |
| | Readily biodegradable (according to OECD criteria). | | | |

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|---------------|---------|
| 64-17-5 | ethanol | -0,31 |
| 67-63-0 | 2-propanol | 0,05 |
| 78-93-3 | butanone | 0,3 |

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12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Hazardous waste according to Directive 2008/98/EC (waste framework directive). Consult the appropriate authorities about waste disposal. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information**Land transport (ADR/RID)**

| | |
|--|---|
| 14.1. UN number or ID number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |



| | |
|----------------------|---------|
| Classification code: | F1 |
| Special Provisions: | 144 601 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |

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| Transport category: | 2 |
| Hazard No: | 33 |
| Tunnel restriction code: | D/E |

Inland waterways transport (ADN)

| | |
|--|---|
| 14.1. UN number or ID number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |



| | |
|----------------------|---------|
| Classification code: | F1 |
| Special Provisions: | 144 601 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |

Marine transport (IMDG)

| | |
|--|---|
| 14.1. UN number or ID number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |



| | |
|---------------------|----------|
| Special Provisions: | 144 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| EmS: | F-E, S-D |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|------------------|
| 14.1. UN number or ID number: | UN 1170 |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |



| | |
|--|-------------|
| Special Provisions: | A3 A58 A180 |
| Limited quantity Passenger: | 1 L |
| Passenger LQ: | Y341 |
| Excepted quantity: | E2 |
| IATA-packing instructions - Passenger: | 353 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |
| IATA-max. quantity - Cargo: | 60 L |

14.5. Environmental hazards

| | |
|----------------------------|----|
| ENVIRONMENTALLY HAZARDOUS: | No |
|----------------------------|----|

14.6. Special precautions for user

Warning: Combustible liquid.

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14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

Additional information

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

ethanol

2-propanol

butanone

SECTION 16: Other information**Changes**

Rev. 2,00; 28.07.2023, Individual safety data sheet based on 18075_collect

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

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IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification | Classification procedure |
|--------------------|--------------------------|
| Flam. Liq. 2; H225 | On basis of test data |
| Eye Irrit. 2; H319 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|---|
| H225 | Highly flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)