

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|----------------|---------------------------------|
| Trade name | Tork Alcohol Gel Hand Sanitizer |
| Article number | 420101 |

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

| | |
|-------------------------------|---|
| Identified uses | Main use category: Biocide Use of the substance/mixture: Cleansers Function or use category: Main group 1: Disinfectants - PT 1 Human hygiene |
| Uses that are advised against | Not indicated |

1.3. Details of the supplier of the safety data sheet

| | |
|-----------|--|
| Company | SCA Hygiene Products AB SE-40503 Göteborg Sweden |
| Telephone | +46 (0)31 746 00 00 |
| E-mail | info@sca.com |
| Website | www.sca.com |

1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Flammable liquids (Category 3), H226

2.2. Label elements

Hazard pictogram



| | |
|--------------------------|---|
| Signal word | Warning |
| Hazard statement | |
| H226 | Flammable liquid and vapour |
| Precautionary statements | |
| P102 | Keep out of reach of children |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking |
| P403+P235 | Store in a well-ventilated place. Keep cool |
| P501 | Dispose of contents and container to authorised waste disposal facility |

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

| Constituent | Classification | Concentration |
|-------------|----------------|---------------|
| | | |

| | | |
|--|---|------|
| ETHANOL | | |
| CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 | Flam Liq 2; H225 | 65 % |
| PROPAN-2-OL | | |
| CAS No: 67-63-0 EC No: 200-661-7 Index No: 603-117-00-0 REACH: 01-2119457558-25 | Flam Liq 2, Eye Irrit 2, STOT SE 3 <i>drow</i> ; H225, H319, H336 | 5 % |

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Upon eye contact

Rinse eyes with plenty of water. If symptoms persist, seek medical advice.

Upon skin contact

If symptoms occur, contact a physician.

Upon ingestion

First rinse the mouth thoroughly with plenty of water and SPIT OUT the rinsing water. Then drink at least half a litre of water and contact the doctor.

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

At normal use this product has no significant harmful local effects.

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

Symptomatic treatment.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguish with powder, carbon dioxide or foam.

5.2. Special hazards arising from the substance or mixture

Combustible liquid, but one which is difficult to ignite.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning.

Emits flammable vapours which may form an explosive mixture with air.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use a respirator mask.

Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

In case of spillage in protected water, call the emergency services immediately, tel. 112 (in Europe).

Use recommended safety equipment, see section 8.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

6.2. Environmental precautions

Avoid release of large quantities of undiluted product to drains.

6.3. Methods and material for containment and cleaning up

Minor spillage should be wiped away or flushed away with water. Large quantities should be collected for incineration in accordance with the local regulations.

Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitisation works. Present this safety data sheet.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Do not eat, drink or smoke in premises where this product is stored.
- Store this product separately from food items and keep it out of the reach of children and pets.
- Avoid open fire, hot items, sparks or other ignition sources.
- Take precautionary measures against static discharge.
- Handle in premises with good ventilation.
- Do not inhale the fumes and avoid exposure to skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Store in a well-ventilated space.
- Store only in the original package.
- Store in a cool and dry place (above freezing temperature and not greater than 30°C).

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. National limit values

ETHANOL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m³

PROPAN-2-OL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 400 ppm / 999 mg/m³
Short term exposure limit (STEL) 500 ppm / 1250 mg/m³

GLYCEROL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 10 mg/m³

DNEL

PROPAN-2-OL

| | Type of exposure | Route of exposure | Value |
|----------|---------------------|-------------------|-----------------------|
| Consumer | Chronic Systemic | Inhalation | 89 mg/m ³ |
| Worker | Chronic Systemic | Dermal | 888 mg/kg |
| Worker | Chronic Systemic | Inhalation | 500 mg/m ³ |
| Consumer | Chronic Systemic | Oral | 26 mg/kg |
| Consumer | Chronic Systemic | Dermal | 319 mg/kg |

PNEC

PROPAN-2-OL

| | |
|------------------------------------|------------|
| Environmental protection target | PNEC value |
| Fresh water | 140.9 mg/l |
| Freshwater sediments | 552 mg/kg |
| Marine water | 140.9 mg/l |
| Marine sediments | 552 mg/kg |
| Microorganisms in sewage treatment | 2251 mg/l |
| Soil (agricultural) | 28 mg/kg |

8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

Skin protection

It is generally not necessary to use protective gloves.

Respiratory protection

Use proper protective breathing equipment in case of insufficient ventilation.

A breathing mask of the A filter (brown) type, may be required.

8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|---|--------------------------------|
| a) Appearance | Form: gel. Colour: colourless. |
| b) Odour | like alcohol |
| c) Odour threshold | Not applicable |
| d) pH | Not indicated |
| e) Melting point/freezing point | Not indicated |
| f) Initial boiling point and boiling range | Not indicated |
| g) Flash point | 24.0 °C |
| h) Evaporation rate | Not indicated |
| i) Flammability (solid, gas) | Not applicable |
| j) Upper/lower flammability or explosive limits | Not indicated |
| k) Vapour pressure | Not indicated |
| l) Vapour density | Not indicated |
| m) Relative density | 0.870 kg/L |
| n) Solubility | Not indicated |
| o) Partition coefficient: n-octanol/water | Not applicable |
| p) Auto-ignition temperature | Not indicated |
| q) Decomposition temperature | Not indicated |
| r) Viscosity | 10000 - 20000 cPs |
| s) Explosive properties | Not applicable |
| t) Oxidising properties | Not applicable |

9.2. Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Ingestion of large quantities can lead to nausea and vomiting.

Acute toxicity

Not classified as an acutely toxic substance.

ETHANOL

LD50 rabbit 24h: > 20000 mg/kg Dermally

LC50 rat 4h: 124.7 mg/L Inhalation

LD50 rat 24h: 6200 mg/kg Orally

PROPAN-2-OL

LD50 rabbit 24h: 15800 mg/kg Dermally

LD50 rat 24h: > 12800 mg/kg Dermally

LC50 rat 4h: 72.6 mg Inhalation

LC50 rat 4h: 64000 ppmV Inhalation

LC50 rat 8h: 16000 ppmV Inhalation

LD50 rat 24h: 5045 mg/kg Orally

Skin corrosion/irritation

No skin irritation has been detected in the event of normal use.

Serious eye damage/irritation

The criteria for classification cannot be considered fulfilled based on available data.

Respiratory or skin sensitisation

Not sensitising.

Germ cell mutagenicity

The criteria for classification cannot be considered fulfilled based on available data.

Carcinogenicity

The criteria for classification cannot be considered fulfilled based on available data.

Reproductive toxicity

The criteria for classification cannot be considered fulfilled based on available data.

STOT-single exposure

The criteria for classification cannot be considered fulfilled based on available data.

STOT-repeated exposure

The criteria for classification cannot be considered fulfilled based on available data.

Aspiration hazard

The product is not classified as being toxic for aspiration.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

The product, according to current criteria and based on available information, is considered not to be harmful to the environment.

ETHANOL

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 13480 mg/L

LC50 fathead minnow (*Pimephales promelas*) 96h: 13480 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 5400 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10800 mg/l

IC50 Algae 72h: 0.02 mg/l

PROPAN-2-OL

LC50 fathead minnow (*Pimephales promelas*) 96h: 9640 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 2285 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 13299 mg/l

LC50 Fish 96h: 1000 mg/l

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10 - 100 mg/l

EC50 Algae 24h: 1 - 10 mg/l

12.2. Persistence and degradability

No information about persistence or degradability exists but there is no reason to suppose that the product is persistent.

12.3. Bioaccumulative potential

No information exists on bioaccumulation, but there is no cause for concern in respect of this.

12.4. Mobility in soil

The product is miscible with water and is therefore variable in soil and water.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

No known effects or hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste handling of the product

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely empty packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely empty packaging can be recycled.

Observe local regulations.

Avoid discharge into sewers.

See also national waste regulations.

SECTION 14: TRANSPORT INFORMATION

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

1170

14.2. UN proper shipping name

ETHANOL SOLUTION

14.3. Transport hazard class(es)

Class

3: Flammable liquids

Classification code (ADR/RID)

F1: Flammable liquids having a flash-point of or below 60 °C

Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

Labels



14.4. Packing group

Packing group III

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Tunnel restrictions

Tunnel category: D/E

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

Stowage category A(IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-E

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-D

SECTION 15: REGULATORY INFORMATION

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: OTHER INFORMATION

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

| | |
|-----------------------|--|
| Flam Liq 2 | Flammable liquids (Category 2) |
| Eye Irrit 2 | Irritates eyes (Category 2) |
| STOT SE 3 <i>draw</i> | Specific target organ toxicity - Single exposure (Category 3, Narcosis effect) |

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: D/E; Transport by bulk or via tank: Passage forbidden through tunnels of category D and E, Other transportation means: Passage forbidden through tunnels of category E

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2016-11-24.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

| | |
|-------------------------------|--|
| 1907/2006 Annex II (2015/830) | COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) |
| 1272/2008 | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 |
| EH40/2005 | EH40/2005 Workplace exposure limits |
| 89/391 | COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work |
| 98/24 | COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) |
| 1907/2006 | REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC |

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

| | |
|------|--|
| H225 | Flammable liquids (Category 2) |
| H319 | Irritates eyes (Category 2) |
| H336 | Specific target organ toxicity - Single exposure (Category 3, Narcosis effect) |

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Editorial information



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|----------------|---------------------------------|
| Trade name | Tork Alcohol Gel Hand Sanitizer |
| Article number | 420101 |

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

| | |
|-------------------------------|---|
| Identified uses | Main use category: Biocide Use of the substance/mixture: Cleansers Function or use category: Main group 1: Disinfectants - PT 1 Human hygiene |
| Uses that are advised against | Not indicated |

1.3. Details of the supplier of the safety data sheet

| | |
|-----------|--|
| Company | SCA Hygiene Products AB SE-40503 Göteborg Sweden |
| Telephone | +46 (0)31 746 00 00 |
| E-mail | info@sca.com |
| Website | www.sca.com |

1.4. Emergency telephone number

Poisons Information Centre of Ireland: +353 1 837 9964 (medical professionals) +353 1 809 2166 (public).

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Flammable liquids (Category 3), H226

2.2. Label elements

Hazard pictogram



| | |
|--------------------------|---|
| Signal word | Warning |
| Hazard statement | |
| H226 | Flammable liquid and vapour |
| Precautionary statements | |
| P102 | Keep out of reach of children |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking |
| P403+P235 | Store in a well-ventilated place. Keep cool |
| P501 | Dispose of contents and container to authorised waste disposal facility |

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

| Constituent | Classification | Concentration |
|-------------|----------------|---------------|
| | | |

| | | |
|--|---|------|
| ETHANOL | | |
| CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 | Flam Liq 2; H225 | 65 % |
| PROPAN-2-OL | | |
| CAS No: 67-63-0 EC No: 200-661-7 Index No: 603-117-00-0 REACH: 01-2119457558-25 | Flam Liq 2, Eye Irrit 2, STOT SE 3 <i>drow</i> ; H225, H319, H336 | 5 % |

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Upon eye contact

Rinse eyes with plenty of water. If symptoms persist, seek medical advice.

Upon skin contact

If symptoms occur, contact a physician.

Upon ingestion

First rinse the mouth thoroughly with plenty of water and SPIT OUT the rinsing water. Then drink at least half a litre of water and contact the doctor.

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

At normal use this product has no significant harmful local effects.

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

Symptomatic treatment.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguish with powder, carbon dioxide or foam.

5.2. Special hazards arising from the substance or mixture

Combustible liquid, but one which is difficult to ignite.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning.

Emits flammable vapours which may form an explosive mixture with air.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use a respirator mask.

Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

In case of spillage in protected water, call the emergency services immediately, tel. 112 (in Europe).

Use recommended safety equipment, see section 8.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

6.2. Environmental precautions

Avoid release of large quantities of undiluted product to drains.

6.3. Methods and material for containment and cleaning up

Minor spillage should be wiped away or flushed away with water. Large quantities should be collected for incineration in accordance with the local regulations.

Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitisation works. Present this safety data sheet.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Do not eat, drink or smoke in premises where this product is stored.
- Store this product separately from food items and keep it out of the reach of children and pets.
- Avoid open fire, hot items, sparks or other ignition sources.
- Take precautionary measures against static discharge.
- Handle in premises with good ventilation.
- Do not inhale the fumes and avoid exposure to skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Store in a well-ventilated space.
- Store only in the original package.
- Store in a cool and dry place (above freezing temperature and not greater than 30°C).

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. National limit values

ETHANOL

Ireland

Short term exposure limit (STEL) 1000 ppm

PROPAN-2-OL

Ireland

Time-weighted-average exposure limit (TWA) 200 ppm
Short term exposure limit (STEL) 400 ppm

GLYCEROL

Ireland

Time-weighted-average exposure limit (TWA) 10 mg/m³

DNEL

PROPAN-2-OL

| | Type of exposure | Route of exposure | Value |
|----------|---------------------|-------------------|-----------------------|
| Consumer | Chronic Systemic | Inhalation | 89 mg/m ³ |
| Worker | Chronic Systemic | Dermal | 888 mg/kg |
| Worker | Chronic Systemic | Inhalation | 500 mg/m ³ |
| Consumer | Chronic Systemic | Oral | 26 mg/kg |
| Consumer | Chronic Systemic | Dermal | 319 mg/kg |

PNEC

PROPAN-2-OL

| | |
|------------------------------------|------------|
| Environmental protection target | PNEC value |
| Fresh water | 140.9 mg/l |
| Freshwater sediments | 552 mg/kg |
| Marine water | 140.9 mg/l |
| Marine sediments | 552 mg/kg |
| Microorganisms in sewage treatment | 2251 mg/l |
| Soil (agricultural) | 28 mg/kg |

8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

Skin protection

It is generally not necessary to use protective gloves.

Respiratory protection

Use proper protective breathing equipment in case of insufficient ventilation.

A breathing mask of the A filter (brown) type, may be required.

8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|---|--------------------------------|
| a) Appearance | Form: gel. Colour: colourless. |
| b) Odour | like alcohol |
| c) Odour threshold | Not applicable |
| d) pH | Not indicated |
| e) Melting point/freezing point | Not indicated |
| f) Initial boiling point and boiling range | Not indicated |
| g) Flash point | 24.0 °C |
| h) Evaporation rate | Not indicated |
| i) Flammability (solid, gas) | Not applicable |
| j) Upper/lower flammability or explosive limits | Not indicated |
| k) Vapour pressure | Not indicated |
| l) Vapour density | Not indicated |
| m) Relative density | 0.870 kg/L |
| n) Solubility | Not indicated |
| o) Partition coefficient: n-octanol/water | Not applicable |
| p) Auto-ignition temperature | Not indicated |
| q) Decomposition temperature | Not indicated |
| r) Viscosity | 10000 - 20000 cPs |
| s) Explosive properties | Not applicable |
| t) Oxidising properties | Not applicable |

9.2. Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Ingestion of large quantities can lead to nausea and vomiting.

Acute toxicity

Not classified as an acutely toxic substance.

ETHANOL

LD50 rabbit 24h: > 20000 mg/kg Dermally

LC50 rat 4h: 124.7 mg/L Inhalation

LD50 rat 24h: 6200 mg/kg Orally

PROPAN-2-OL

LD50 rabbit 24h: 15800 mg/kg Dermally

LD50 rat 24h: > 12800 mg/kg Dermally

LC50 rat 4h: 72.6 mg Inhalation

LC50 rat 4h: 64000 ppmV Inhalation

LC50 rat 8h: 16000 ppmV Inhalation

LD50 rat 24h: 5045 mg/kg Orally

Skin corrosion/irritation

No skin irritation has been detected in the event of normal use.

Serious eye damage/irritation

The criteria for classification cannot be considered fulfilled based on available data.

Respiratory or skin sensitisation

Not sensitising.

Germ cell mutagenicity

The criteria for classification cannot be considered fulfilled based on available data.

Carcinogenicity

The criteria for classification cannot be considered fulfilled based on available data.

Reproductive toxicity

The criteria for classification cannot be considered fulfilled based on available data.

STOT-single exposure

The criteria for classification cannot be considered fulfilled based on available data.

STOT-repeated exposure

The criteria for classification cannot be considered fulfilled based on available data.

Aspiration hazard

The product is not classified as being toxic for aspiration.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

The product, according to current criteria and based on available information, is considered not to be harmful to the environment.

ETHANOL

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 13480 mg/L

LC50 fathead minnow (*Pimephales promelas*) 96h: 13480 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 5400 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10800 mg/l

IC50 Algae 72h: 0.02 mg/l

PROPAN-2-OL

LC50 fathead minnow (*Pimephales promelas*) 96h: 9640 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 2285 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 13299 mg/l

LC50 Fish 96h: 1000 mg/l

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10 - 100 mg/l

EC50 Algae 24h: 1 - 10 mg/l

12.2. Persistence and degradability

No information about persistence or degradability exists but there is no reason to suppose that the product is persistent.

12.3. Bioaccumulative potential

No information exists on bioaccumulation, but there is no cause for concern in respect of this.

12.4. Mobility in soil

The product is miscible with water and is therefore variable in soil and water.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

No known effects or hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste handling of the product

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely empty packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely empty packaging can be recycled.

Observe local regulations.

Avoid discharge into sewers.

See also national waste regulations.

SECTION 14: TRANSPORT INFORMATION

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

1170

14.2. UN proper shipping name

ETHANOL SOLUTION

14.3. Transport hazard class(es)

Class

3: Flammable liquids

Classification code (ADR/RID)

F1: Flammable liquids having a flash-point of or below 60 °C

Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

Labels



14.4. Packing group

Packing group III

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Tunnel restrictions

Tunnel category: D/E

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

Stowage category A(IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-E

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-D

SECTION 15: REGULATORY INFORMATION

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: OTHER INFORMATION

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

| | |
|-----------------------|--|
| Flam Liq 2 | Flammable liquids (Category 2) |
| Eye Irrit 2 | Irritates eyes (Category 2) |
| STOT SE 3 <i>draw</i> | Specific target organ toxicity - Single exposure (Category 3, Narcosis effect) |

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: D/E; Transport by bulk or via tank: Passage forbidden through tunnels of category D and E, Other transportation means: Passage forbidden through tunnels of category E

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2016-11-24.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

| | |
|-------------------------------|--|
| 1907/2006 Annex II (2015/830) | COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) |
| 1272/2008 | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 |
| 89/391 | COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work |
| 98/24 | COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) |
| 1907/2006 | REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC |

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

| | |
|------|--|
| H225 | Flammable liquids (Category 2) |
| H319 | Irritates eyes (Category 2) |
| H336 | Specific target organ toxicity - Single exposure (Category 3, Narcosis effect) |

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information**Editorial information**

This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se