Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Revision date: 11/11/2015

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

| 1.1. Product identifier | |
|---------------------------------|---|
| Trade name: | DISINFECTOR 70% - GEL |
| Group name: | Disinfection products |
| Article no | |
| Article no | Description |
| 3700 | |
| 1.2. Relevant identified uses | of the substance or mixture and uses advised against |
| Recommended uses: | Biocide. Use biocides safely. Always read the label and product information before use. The product is used for the disinfection of skin / hands. |
| Inadvisable uses: | The product is not suitable for surface disinfection. |
| 1.3. Details of the supplier of | f the safety data sheet |
| Manufacturer | |
| Company: | Plum A/S |
| Address: | Frederik Plums Vej 2 |
| Zip code: | 5610 Assens |
| Country: | DENMARK |
| E-mail: | info@plum.dk |
| Phone: | +45 64712112 |
| Fax: | +45 64712125 |
| | |

1.4. Emergency Telephone Number

0870 600 6266 (UK only) Only available to health professionals. The emergency telephone is open 24 hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| CLP-classification: | Flam. Liq. 2;H225 Eye Irrit. 2;H319 |
|-------------------------------|--|
| Most serious harmful effects: | Highly flammable liquid and vapour. Causes serious eye irritation. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. |
| ••••• | |

2.2. Label elements

Pictograms

Revision date: 11/11/2015

Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015



| Signal word: | Danger | | |
|-------------------|---|--|--|
| Hazard Statemen | ts | | |
| H225 H319 | Highly flammable liquid and vapour. Causes serious eye irritation. | | |
| Precautionary sta | atements | | |
| P102 | Keep out of reach of children. | | |

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy P305/351/338 to do. Continue rinsing.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Substance | CAS number | EC No | REACH Reg. No. | Concentration | Notes | CLP- classification |
|---|------------|-----------|---------------------------|---------------|-------|---|
| Ethanol | 64-17-5 | 200-578-6 | 01-2119457610- 43-xxxx | 55 - 75% | 15 | Flam. Liq. 2;H225 Eye Irrit. 2;H319 |
| Water | 7732-18-5 | 231-791-2 | | 20 - 30% | | |
| propan-2-ol | 67-63-0 | 200-661-7 | 01-2119457558- 25-xxxx | 5 - 15% | | Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336 |
| glycerol | 56-81-5 | | | 1 - 5% | | |
| 2-methylpropan- 2-ol | 75-65-0 | 200-889-7 | | 1 - 5% | | Flam. Liq. 2;H225 Eye Irrit. 2;H319 Acute Tox. 4;H332 STOT SE 3;H335 |
| Tetrahydroxyprop yl ethylenediamine | 102-60-3 | 203-041-4 | | < 1% | | Eye Irrit. 2;H319 |
| Polyacrylic Acid | 9003-01-4 | | | < 1% | | Eye Irrit. 2;H319 Aquatic Chronic 3;H412 |

Please see section 16 for the full text of R-phrases and H-phrases.

15 = REACH-registered with a different classification than in Regulation 1272/2008 Appendix VI.

SECTION 4: First aid measures

4.1. Description of first aid measures

| Inhalation: | Seek fresh air. Seek medical advice in case of persistent discomfort. | |
|----------------------------------|--|--------|
| Ingestion: | Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of discomfort. | |
| Skin contact: | The product is intended to come into contact with the skin. In case of wound smarts, flus with water. | sh |
| Eye contact: | Flush immediately with water (preferably using eye wash equipment) for at least 5 minut | tes. |
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Safety Data Sheet DISINFECTOR 70% - GEL

| | DISINFECTOR 70% - GEL |
|---------------------------|--|
| Replaces date: 25/02/2015 | Revision date: 11/11/2015 |
| | Open eye wide. Remove any contact lenses. Seek medical advice. |
| Burns: | Flush with water until pain ceases. Remove clothing that is not stuck to the skin - seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained. |
| General: | When obtaining medical advice, show the safety data sheet or label. |

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

Irritating to eyes. Causes a burning sensation and tearing. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Prolonged or repeated inhalation of vapours may cause damage to the central nervous system.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

| Suitable extinguishing media: | Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited stock. |
|---------------------------------|--|
| Unsuitable extinguishing media: | Do not use water stream, as it may spread the fire. |

5.2. Special hazards arising from the substance or mixture

The product decomposes when combusted and the following toxic gases can be formed: Carbon monoxide and carbon dioxide.

5.3. Advice for fire-fighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Stop leak if this can be done without risk. Provide adequate ventilation. Smoking and naked flames prohibited. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment. Wear safety goggles if there is a risk of eye splash.

For emergency responders: In addition to the above: Normal protective clothing equivalent to EN 469 is recommended.

6.2. Environmental precautions

Do not discharge large quantities of concentrated spills and residue into drains.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers. Rinse with water. Wipe up minor spills with a cloth. Provide good ventilation.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Revision date: 11/11/2015

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use the product under well-ventilated conditions. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment. Smoking and naked flames prohibited. Wash hands before breaks, before using restroom facilities, and at the end of work. Running water and eye wash equipment must be available. A workplace assessment must be conducted to ensure that employees are not exposed to effects that may involve a risk during pregnancy.

7.2. Conditions for safe storage, including any incompatibilities

Store safely and keep out of reach of children. Keep in tightly closed original packaging. Storage temperature: 0-30 °C.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

| Substance name | Time per | riod | ppm | mg/m3 | Comment | Remarks |
|---|---|---|---------------------------------------|--------------------------|------------------------|--------------------|
| Ethanol | 8h | | 1.000 | 1.920 | | |
| Ethanol | 15m | | | | | |
| propan-2-ol | 8h | | 400 | 999 | | |
| propan-2-ol | 15m | | 500 | 1250 | | |
| 2-methylpropan-2-ol | 8h | | 100 | 308 | | |
| 2-methylpropan-2-ol | 15m | | 150 | 462 | | |
| Measuring methods | 5: | | ance with the stated of measurements. | occupational exposure | e limits may be checke | ed by occupational |
| Legal basis: | | EH40/2 | 005 Workplace expo | sure limits incl. supple | ement from October 20 | 007. |
| 8.2. Exposure cor | ntrols | | | | | |
| Appropriate engine controls: | ering | Wear the personal protective equipment specified below. | | | | |
| Personal protective equipment, Not required. eye/face protection: Wear safety goggles if there is a risk of eye splash. Eye protection must conform to EN 1 | | | | | conform to EN 166. | |
| Personal protective hand protection: | equipment, The product is intended to come into contact with the skin. With long-term work or when cleaning up after large spills of the product, the use of e.g. nitril rubber gloves is recommended. The gloves should be change after use. | | | | | |
| Personal protective skin protection: | equipment, | , Not required. | | | | |
| Personal protective respiratory protection | | ent, Not required. | | | | |
| Environmental expo controls: | nvironmental exposure Ensure compliance with local regulations for emissions. ontrols: | | | | | |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Revision date: 11/11/2015

| Parameter | | Value/unit | | | |
|---|-----------------------------|--------------------------|--|--|--|
| State | Gel | | | | |
| Colour | Clear | | | | |
| Odour | Alcohol | | | | |
| Solubility | Soluble in the following: C | organic solvents. Water. | | | |
| Explosive properties | No data | | | | |
| Oxidising properties | Non-oxidising. | | | | |
| Parameter | Value/unit | Remarks | | | |
| pH (solution for use) | No data | | | | |
| pH (concentrate) | 7 - 9 | | | | |
| Melting point | No data | | | | |
| Freezing point | No data | | | | |
| Initial boiling point and boiling range | 78 °C | | | | |
| Flash Point | 22.5 °C | | | | |
| Evaporation rate | No data | | | | |
| Flammability (solid, gas) | No data | | | | |
| Flammability limits | No data | | | | |
| Explosion limits | No data | | | | |
| Vapour pressure | No data | | | | |
| Vapour density | No data | | | | |
| Relative density | No data | | | | |
| Partition coefficient n-octonol/water | No data | | | | |
| Auto-ignition temperature | No data | | | | |
| Decomposition temperature | No data | | | | |
| Viscosity | No data | | | | |
| Odour threshold | No data | | | | |

9.2 Other information

| Parameter | Value/unit | Remarks |
|-----------|-----------------|---------|
| Density | 0,8 - 0,9 g/cm³ | |

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following: Strong oxidisers.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

Strong oxidisers.

Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Revision date: 11/11/2015

10.6. Hazardous decomposition products

The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed: Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Ethanol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------------|------------|-------------|----------|
| Rat | LD50 | | > 2000mg/kg | | OECD TG 401 | Supplier |

propan-2-ol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------------|------------|-------------|----------|
| Rat | LD50 | | > 2000mg/kg | | | Supplier |

Ingestion may cause discomfort. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal

Ethanol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------------|------------|-------------|----------|
| Rabbit | LD50 | | > 2000mg/kg | | OECD TG 402 | Supplier |

propan-2-ol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------------|------------|-------------|----------|
| Rabbit | LD50 | | > 2000mg/kg | | | Supplier |

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - inhalation

Ethanol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|----------|------------|-------------|----------|
| Mouse | | 4 h | > 20mg/l | | | Supplier |

propan-2-ol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|----------|------------|-------------|----------|
| Rat | LC50 | 8 h | > 20mg/l | | | Supplier |

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Skin corrosion/irritation

Ethanol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|------------|---------------|-------|------------|-------------|----------|
| Rabbit | Irritation | | | | OECD TG 404 | Supplier |

propan-2-ol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------|----------------|-------------|----------|
| Rabbit | | | | Non-irritating | | Supplier |

Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Revision date: 11/11/2015

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Serious eye damage/eye irritation

Ethanol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------|----------------------------|-------------|----------|
| Rabbit | | | | Moderate eye irritation | OECD TG 405 | Supplier |

propan-2-ol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-------|------------|-------------|----------|
| Rabbit | | | | Irritating | | Supplier |

Irritating to eyes. Causes a burning sensation and tearing.

Respiratory sensitisation or skin sensitisation

Ethanol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|------------|-----------|---------------|-------|-----------------|-------------|----------|
| Guinea Pig | | | | Not sensitizing | OECD TG 406 | Supplier |

propan-2-ol

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|------------|--------------|---------------|-------|-----------------|-------------|----------|
| Guinea Pig | Buehler-Test | | | Not sensitizing | | Supplier |

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

| Germ cell mutagenicity: | The product does not have to be classified. Test data are not available. |
|------------------------------|--|
| Carcinogenic properties: | The product does not have to be classified. Test data are not available. |
| Reproductive toxicity: | The product does not have to be classified. Test data are not available. |
| Single STOT exposure: | The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Test data are not available. |
| Repeated STOT exposure: | Prolonged or repeated inhalation of vapours may cause damage to the central nervous system. Test data are not available. |
| Aspiration hazard: | The product does not have to be classified. Test data cannot be obtained for technical reasons. |
| Other toxicological effects: | None known. |

SECTION 12: Ecological information

12.1. Toxicity

Ethanol

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|--------------------------------|-----------------------------|---------------|-----------|-----------|------------|-------------|----------|
| Fish | Leuciscus idus melanotus | 48 h | | > 100mg/l | | | Supplier |
| Algea or other acquatic plants | | | | 5000 mg/l | | | Supplier |
| Crustacea | Daphnia magna | 24 h | | > 100mg/l | | | Supplier |

Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Revision date: 11/11/2015

| Bacteria | Pseudomonas putida | 16 h | | 6500 mg/l | | | Supplier |
|----------|-----------------------|------|--|-----------|--|--|----------|
|----------|-----------------------|------|--|-----------|--|--|----------|

propan-2-ol

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|--------------------------------|-----------------------------|---------------|-----------|-----------|------------|-------------|----------|
| Fish | Leuciscus idus melanotus | 48 h | LC50 | > 100mg/l | | | Supplier |
| Crustacea | Daphnia magna | 48 h | EC50 | > 100mg/l | | | Supplier |
| Algea or other acquatic plants | Scenedesmus subspicatus | 72 h | | > 100mg/l | | | Supplier |

12.2. Persistence and degradability

Expected to be biodegradable. Test data are not available.

12.3. Bioaccumulative potential

No bioaccumulation expected. Test data are not available.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid unnecessary release to the environment. Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

Wiping cloths with organic solvents: EWC code: 15 02 02 Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances.

Empty, cleansed packaging should be disposed of for recycling. Uncleansed packaging is to be disposed of via the local waste-removal scheme.

16 03 05* organic wastes containing dangerous substances

SECTION 14: Transport information

Land transport (ADR/RID)

| 14.1. UN-No.: | 1987 | 14.4. Packing group: | II |
|--------------------------------------|----------------------------|------------------------------|---|
| 14.2. UN proper shipping name: | (Ethanol) (propan-2-ol) | 14.5. Environmental hazards: | The product should not be labelled as an environmental hazard (symbol: fish and tree). |
| 14.3. Transport hazard class(es): | 3 | | |
| Hazard label(s): | 3 | | |

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| | Safety Da | ata Sheet | |
|---|--|---|---|
| | DISINFECTO | | |
| Replaces date: 25/02/2015 | | | Revision date: 11/11/2015 |
| Hazard identification number: Other Information: | 33 | Tunnel restriction code: | D/E |
| Inland water ways transport | (ADN) | | |
| 14.1. UN-No.: | 1987 | 14.4. Packing group: | II |
| 14.2. UN proper shipping name: | ALCOHOLS, N.O.S. (Ethanol) (propan-2-ol) | 14.5. Environmental hazards: | The product should not be labelled as an environmental hazard (symbol: fish and tree). |
| 14.3. Transport hazard class(es): | 3 | | |
| Hazard label(s): | 3 Nataraliashla | | |
| Environmentally hazardous in tank vessels: | Not applicable. | Other Information: | |
| Sea transport (IMDG) | | | |
| 14.1. UN-No.: | 1987 | 14.4. Packing group: | II |
| 14.2. UN proper shipping name: | ALCOHOLS, N.O.S. (Ethanol) (propan-2-ol) | 14.5. Environmental hazards: | The product is not a Marine Pollutant (MP). |
| 14.3. Transport hazard class(es): | 3 | Environmental Hazardous Substance Name(s): | |
| Hazard label(s): | 3 | | |
| EmS: Other Information: | F-E, S-D | IMDG Code segregation group: | |
| | | | |
| Air transport (ICAO-TI / IATA | · · · | | |
| 14.1. UN-No.: 14.2. UN proper shipping name: | 1987 ALCOHOLS, N.O.S. (Ethanol) (propan-2-ol) | 14.4. Packing group: 14.5. Environmental hazards: | II |
| 14.3. Transport hazard class(es): | 3 | | |
| Hazard label(s): | 3 | Other Information: | |
| 14.6. Special precautions fo | r user | | |
| None. | | | |
| 14.7. Transport in bulk acco | rding to Annex II of MARP | OL73/78 and the IBC code | |
| Not applicable. | | | |

SECTION 15: Regulatory information

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

| Special Provisions: | Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product. This product is covered by Directive 98/8/EC of the European Paliament and of the Council concerning the placing of biocidal products on the market, and will be covered by the EU Biocides Regulation 528/2012 as appropriate. |
|---------------------|---|
| | Biocides Regulation 528/2012 as appropriate. |

15.2. Chemical Safety Assessment

Safety Data Sheet DISINFECTOR 70% - GEL

Replaces date: 25/02/2015

Other Information:

Revision date: 11/11/2015

Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

| Version | Revision date | Responsible | Changes | |
|------------------------|---|--|--|--|
| 2.0.0 | 25/02/2015 | SKP | 453/2010 + 1272/2008 (UK) | |
| 2.1.0 | 11/11/2015 | SKP | 2015/830 + Section 3 (UK) | |
| Abbreviations: | | vel PNEC: Predicted No Effect C Persistent, Bioaccumulative and | oncentration STOT: Specific Toxic vPvB: Very Persistent and | |
| Other Information: | Shelf life: 30 months. Additional information can be obtained by contacting by telephone +45 6471 2112. | | by contacting info@plum.dk or | |
| Training advice: | A thorough knowledge of this safety data sheet should be a prerequisite condition. | | | |
| Date: | 11/11/2015 | | | |
| Classification method: | Calculation based on the hazards of the known components. Test data | | | |

List of relevant H-statements

| H225 | Highly flammable liquid and vapour. |
|------|--|
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H412 | Harmful to aquatic life with long lasting effects. |

SDS is prepared by

| Company: | Plum A/S |
|--------------------|----------------------|
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| Document language: | GB |