SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Permethrin (1%) Formulation

Version 2.3
Revision Date: 27.08.2021
SDS Number: 5558022-00005
Date of last issue: 18.03.2021
Date of first issue: 19.03.2020

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

1.1 Product identifier
Trade name: Permethrin (1%) Formulation

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture: Veterinary product

1.3 Details of the supplier of the safety data sheet
Company: MSD
Kilsheolan
Clonmel Tipperary, IE

Telephone: 353-51-601000
E-mail address of person responsible for the SDS: EHSDATASTEWARD@msd.com

1.4 Emergency telephone number
+1-908-423-6000

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
- Serious eye damage, Category 1: H318: Causes serious eye damage.
- Skin sensitisation, Category 1: H317: May cause an allergic skin reaction.
- Germ cell mutagenicity, Category 2: H341: Suspected of causing genetic defects.
- Carcinogenicity, Category 1B: H350: May cause cancer.
- Short-term (acute) aquatic hazard, Category 1: H400: Very toxic to aquatic life.
- Long-term (chronic) aquatic hazard, Category 1: H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms:

Signal word: Danger
Hazard statements:
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H341: Suspected of causing genetic defects.
- H350: May cause cancer.
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Precautionary statements:

Prevention:
P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage.

Hazardous components which must be listed on the label:
Sulfuric acid, mono-C16-18-alkyl esters, sodium salts
Coconut oil diethanolamide
Permethrin (ISO)
Formaldehyde

Additional Labelling
Restricted to professional users.

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfuric acid, mono-C16-18-alkyl esters, sodium salts</td>
<td>68955-20-4</td>
<td>273-258-7</td>
<td></td>
<td>Flam. Sol. 2; H228 Skin Irrit. 2; H315 Eye Dam. 1; H318</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Commodity</td>
<td>CAS Number</td>
<td>Classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coconut oil diethanolamide</td>
<td>68603-42-9 271-657-0</td>
<td>Skin Irrit. 2; H315 Eye Dam. 1; H318 Eye Irrit. 2; H319 Muta. 2; H341 Aquatic Chronic 2; H411</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanol#</td>
<td>64-17-5 200-578-6 603-002-00-5</td>
<td>Flam. Liq. 2; H225 Eye Irrit. 2; H319 &gt;= 50 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permethrin (ISO)</td>
<td>52645-53-1 258-067-9 613-058-00-2</td>
<td>Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10.000 M-Factor (Chronic aquatic toxicity): 10.000 Acute toxicity estimate Acute oral toxicity: 480 mg/kg Acute inhalation toxicity (dust/mist): 2,3 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0 200-001-8</td>
<td>Flam. Gas 1B; H221 &gt;= 0,2 - &lt; 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders: First Aid responders should pay attention to self-protection.
and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

If inhaled
If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact
In case of contact, immediately flush skin with plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention immediately.

If swallowed
If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed
Risks
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of causing genetic defects.
May cause cancer.

4.3 Indication of any immediate medical attention and special treatment needed
Treatment
Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media
None known.

5.2 Special hazards arising from the substance or mixture
Specific hazards during firefighting
Exposure to combustion products may be a hazard to health.

Hazardous combustion products
Chlorine compounds
Carbon oxides
Nitrogen oxides (NOx)
Sulphur oxides
Metal oxides
5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

6.2 Environmental precautions

Environmental precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spills cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
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Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Avoid breathing mist or vapours.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in properly labelled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations.

Advice on common storage : Do not store with the following product types:
Strong oxidizing agents
Organic peroxides
Explosives
Gases

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>500 ppm 950 mg/m³</td>
<td>FOR-2011-12-06-1358</td>
</tr>
<tr>
<td>Permethrin (ISO)</td>
<td>52645-53-1</td>
<td>TWA</td>
<td>80 µg/m³ (OEB 3)</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>800 µg/100 cm²</td>
<td>Internal</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>TWA</td>
<td>0,5 ppm 0,6 mg/m³</td>
<td>FOR-2011-12-06-1358</td>
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</tbody>
</table>

Further information: Substances considered to be carcinogenic, Substances considered to evoke allergies when coming into touch with the eyes or air-
## Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol castor oil</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>16,4 mg/m³</td>
</tr>
<tr>
<td>Workers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>4,67 mg/kg bw/day</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>2,9 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>1,67 mg/kg bw/day</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Ingestion</td>
<td>Long-term systemic effects</td>
<td>1,67 mg/kg bw/day</td>
<td></td>
</tr>
<tr>
<td>Sulfuric acid, mono-C16-18-alkyl esters, sodium salts</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>285 mg/m³</td>
</tr>
<tr>
<td>Workers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>4060 mg/kg bw/day</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>85 mg/m³</td>
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<tr>
<td>Consumers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>2440 mg/kg bw/day</td>
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<tr>
<td>Consumers</td>
<td>Ingestion</td>
<td>Long-term systemic effects</td>
<td>24 mg/kg bw/day</td>
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</tr>
<tr>
<td>Ethanol</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>950 mg/m³</td>
</tr>
<tr>
<td>Workers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>343 mg/kg bw/day</td>
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</tr>
<tr>
<td>Consumers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>114 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>206 mg/kg bw/day</td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>Ingestion</td>
<td>Long-term systemic effects</td>
<td>87 mg/kg bw/day</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>9 mg/m³</td>
</tr>
<tr>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term local effects</td>
<td>0,375 mg/m³</td>
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<tr>
<td>Workers</td>
<td>Skin contact</td>
<td>Long-term systemic</td>
<td>240 mg/kg</td>
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</tbody>
</table>
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Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol castor oil</td>
<td>Fresh water</td>
<td>0.000 mg/l</td>
</tr>
<tr>
<td></td>
<td>Freshwater - intermittent</td>
<td>0.0661 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.000 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water - intermittent</td>
<td>0.000661 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.0129 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.00129 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>0.00258 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Sulfuric acid, mono-C16-18-alkyl esters, sodium salts</td>
<td>Fresh water</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.002 mg/l</td>
</tr>
<tr>
<td></td>
<td>Sewage treatment plant</td>
<td>550 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>6.75 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.675 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>1.35 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Fresh water</td>
<td>0.96 mg/l</td>
</tr>
<tr>
<td></td>
<td>Freshwater - intermittent</td>
<td>2.75 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.79 mg/l</td>
</tr>
<tr>
<td></td>
<td>Sewage treatment plant</td>
<td>580 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>3.6 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>2.9 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>0.63 mg/kg dry weight (d.w.)</td>
</tr>
<tr>
<td></td>
<td>Oral (Secondary Poisoning)</td>
<td>380 mg/kg food</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Fresh water</td>
<td>0.44 mg/l</td>
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<tr>
<td></td>
<td>Marine water</td>
<td>0.44 mg/l</td>
</tr>
<tr>
<td></td>
<td>Intermittent use/release</td>
<td>4.44 mg/l</td>
</tr>
<tr>
<td></td>
<td>Sewage treatment plant</td>
<td>0.19 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>2.3 mg/kg</td>
</tr>
</tbody>
</table>
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8.2 Exposure controls

**Engineering measures**
Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).
Minimize open handling.

**Personal protective equipment**

**Eye protection**
- Wear safety glasses with side shields or goggles.
  - If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
  - Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

**Hand protection**

- **Material**
  - Chemical-resistant gloves
- **Remarks**
  - Consider double gloving.

**Skin and body protection**

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.
Use appropriate degowning techniques to remove potentially contaminated clothing.

**Respiratory protection**

- **Filter type**
  - Combined particulates, inorganic gas/vapour and organic vapour type (AB-P)

**SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

- **Physical state**
  - liquid
- **Colour**
  - amber
- **Odour**
  - No data available
- **Odour Threshold**
  - No data available
- **Melting point/freezing point**
  - No data available
- **Initial boiling point and boiling range**
  - No data available
- **Flammability (solid, gas)**
  - Not applicable
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (liquids)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.3 - 7.7</td>
</tr>
<tr>
<td>Viscosity (Viscosity, kinematic)</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility (Water solubility)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.025 - 1.035 g/cm³</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Particle characteristics</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Particle size</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2 Other information

- Explosives: Not explosive
- Oxidizing properties: The substance or mixture is not classified as oxidizing.
- Evaporation rate: No data available
- Molecular weight: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
Not classified as a reactivity hazard.

10.2 Chemical stability
Stable under normal conditions.
10.3 Possibility of hazardous reactions
Hazardous reactions: Can react with strong oxidizing agents.

10.4 Conditions to avoid
Conditions to avoid: None known.

10.5 Incompatible materials
Materials to avoid: Oxidizing agents

10.6 Hazardous decomposition products
No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Information on likely routes of exposure:
- Inhalation
- Skin contact
- Ingestion
- Eye contact

Acute toxicity
Not classified based on available information.

Product:
- Acute oral toxicity: Acute toxicity estimate: > 2.000 mg/kg
  Method: Calculation method
- Acute inhalation toxicity: Acute toxicity estimate: > 5 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Method: Calculation method
- Acute dermal toxicity: Acute toxicity estimate: > 2.000 mg/kg
  Method: Calculation method

Components:
Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:
- Acute oral toxicity: LD50 (Rat): 4.010 mg/kg
  Remarks: Based on data from similar materials
- Acute dermal toxicity: LD50 (Rat): > 2.000 mg/kg
  Method: OECD Test Guideline 402
  Remarks: Based on data from similar materials

Coconut oil diethanolamide:
- Acute oral toxicity: LD50 (Rat): > 5.000 mg/kg
- Acute dermal toxicity: LD50 (Rabbit): > 2.000 mg/kg
  Assessment: The substance or mixture has no acute dermal
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<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>SDS Number</th>
<th>Date of last issue</th>
<th>Date of first issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3</td>
<td>27.08.2021</td>
<td>5558022-00005</td>
<td>18.03.2021</td>
<td>19.03.2020</td>
</tr>
</tbody>
</table>

**Ethanol:**

- **Acute oral toxicity**: LD50 (Rat): > 5.000 mg/kg
  Method: OECD Test Guideline 401

- **Acute inhalation toxicity**: LC50 (Rat): 124,7 mg/l
  Exposure time: 4 h
  Test atmosphere: vapour

**Permethrin (ISO):**

- **Acute oral toxicity**: LD50 (Rat): 480 - 554 mg/kg

- **Acute inhalation toxicity**: LC50 (Rat): 2,3 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Acute toxicity estimate: 2,3 mg/l
  Test atmosphere: dust/mist
  Method: Calculation method

- **Acute dermal toxicity**: LD50 (Rabbit): > 2.000 mg/kg

**Formaldehyde:**

- **Acute oral toxicity**: Acute toxicity estimate: 100 mg/kg
  Method: Expert judgement

- **Acute inhalation toxicity**: Acute toxicity estimate: 100 ppm
  Exposure time: 4 h
  Test atmosphere: gas
  Method: Expert judgement

- **Acute dermal toxicity**: LD50 (Rabbit): 270 mg/kg
  Acute toxicity estimate: 270 mg/kg
  Method: Calculation method

**Skin corrosion/irritation**
Not classified based on available information.

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**

- **Species**: Rabbit
- **Method**: OECD Test Guideline 404
- **Result**: Skin irritation
- **Remarks**: Based on data from similar materials
Permethrin (1%) Formulation

---

**Coconut oil diethanolamide:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: Skin irritation  
Remarks: Based on data from similar materials

---

**Ethanol:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

---

**Permethrin (ISO):**

Species: Rabbit  
Result: No skin irritation

---

**Formaldehyde:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: Corrosive after 3 minutes to 1 hour of exposure

---

**Serious eye damage/eye irritation**

Causes serious eye damage.

---

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: Irreversible effects on the eye  
Remarks: Based on data from similar materials

---

**Coconut oil diethanolamide:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: Irreversible effects on the eye  
Remarks: Based on data from similar materials

---

**Ethanol:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: Irritation to eyes, reversing within 21 days

---

**Permethrin (ISO):**

Species: Rabbit  
Result: No eye irritation

---

**Formaldehyde:**

Species: Rabbit
Respiratory or skin sensitisation

Skin sensitisation
May cause an allergic skin reaction.

Respiratory sensitisation
Not classified based on available information.

Components:

Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:
Test Type: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Coconut oil diethanolamide:
Test Type: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative
Remarks: Based on data from similar materials

Ethanol:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Permethrin (ISO):
Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Result: positive
Assessment: Probability or evidence of skin sensitisation in humans

Formaldehyde:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: positive
Assessment: Probability or evidence of high skin sensitisation rate in humans
Germ cell mutagenicity
Suspected of causing genetic defects.

Components:

Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Coconut oil diethanolamide:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Mouse
Application Route: Skin contact
Result: positive

Germ cell mutagenicity assessment: Positive result(s) from in vivo mammalian somatic cell muta-
genicity tests.

Ethanol:
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo: Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Ingestion
Result: equivocal

Permethrin (ISO):
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Test Type: Chromosome aberration test in vitro
Result: positive
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Genotoxicity in vivo:
- Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  - Species: Mouse
  - Result: negative
- Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
  - Species: Mouse
  - Result: negative
- Test Type: Rodent dominant lethal test (germ cell) (in vivo)
  - Species: Mouse
  - Result: negative
- Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  - Species: Rat
  - Application Route: Intraperitoneal injection
  - Result: negative
- Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
  - Species: Mouse
  - Application Route: Ingestion
  - Result: positive

Germ cell mutagenicity- Assessment:
- Weight of evidence does not support classification as a germ cell mutagen.

Formaldehyde:
Genotoxicity in vitro:
- Test Type: Bacterial reverse mutation assay (AMES)
  - Result: positive
- Test Type: Chromosome aberration test in vitro
  - Result: positive

Genotoxicity in vivo:
- Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  - Species: Rat
  - Application Route: Inhalation
  - Result: positive

Germ cell mutagenicity- Assessment:
- Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

Carcinogenicity:
May cause cancer.

Components:

Coconut oil diethanolamide:
Species: Rat
Application Route: Skin contact
Exposure time: 2 Years
Result: negative

**Permethrin (ISO):**
Species: Rat
Result: negative

Species: Mouse
Result: negative

**Formaldehyde:**
Species: Rat
Application Route: inhalation (gas)
Exposure time: 28 Months
Result: positive

Carcinogenicity - Assessment: Sufficient evidence of carcinogenicity in animal experiments

**Reproductive toxicity**
Not classified based on available information.

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**
Effects on foetal development: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

**Coconut oil diethanolamide:**
Effects on foetal development: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

**Ethanol:**
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: negative

**Permethrin (ISO):**
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat  
Application Route: Ingestion  
Result: negative

**Formaldehyde:**  
Effects on foetal development:  
Test Type: Embryo-foetal development  
Species: Rat  
Application Route: inhalation (gas)  
Result: negative

**STOT - single exposure**  
Not classified based on available information.

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**  
Assessment: May cause respiratory irritation.

**Formaldehyde:**  
Assessment: May cause respiratory irritation.

**STOT - repeated exposure**  
Not classified based on available information.

**Components:**

**Formaldehyde:**  
Exposure routes: inhalation (gas)  
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity**

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**  
Species: Rat  
NOAEL: 428 mg/kg  
LOAEL: 970 mg/kg  
Application Route: Ingestion  
Exposure time: 90 Days

**Coconut oil diethanolamide:**  
Species: Rat  
NOAEL: > 750 mg/kg  
Application Route: Ingestion  
Exposure time: 28 Days  
Remarks: Based on data from similar materials

**Ethanol:**
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</tbody>
</table>

**Species**

- **Rat**

**NOAEL**

- **1.280 mg/kg**

**LOAEL**

- **3.156 mg/kg**

**Application Route**

- Ingestion

**Exposure time**

- **90 Days**

**Permethrin (ISO):**

**Species**

- **Rat**

**NOAEL**

- **0.2201 mg/l**

**Application Route**

- Inhalation

**Exposure time**

- **90 Days**

**Species**

- **Rat**

**NOAEL**

- **175 mg/kg**

**Application Route**

- Ingestion

**Exposure time**

- **90 Days**

**Formaldehyde:**

**Species**

- **Rat**

**NOAEL**

- **6 ppm**

**LOAEL**

- **10 ppm**

**Application Route**

- Inhalation (gas)

**Exposure time**

- **28 Days**

**Aspiration toxicity**

Not classified based on available information.

### 11.2 Information on other hazards

**Endocrine disrupting properties**

**Product:**

**Assessment**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**

**Toxicity to fish**

- LC50 (Danio rerio (zebra fish)): 5.2 mg/l
  - Exposure time: 96 h

**Toxicity to daphnia and other aquatic invertebrates**

- EC50 (Daphnia magna (Water flea)): 2.8 mg/l
  - Exposure time: 48 h
  - Method: OECD Test Guideline 202
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Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants: ErC50 (Desmodesmus subspicatus (green algae)): 34 mg/l
Exposure time: 72 h

Toxicity to microorganisms: NOEC (Pseudomonas putida): 550 mg/l
Exposure time: 18 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 0,204 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (water flea)
Remarks: Based on data from similar materials

Coconut oil diethanolamide:

Toxicity to fish: LC50 (Brachydanio rerio (zebrafish)): 6,7 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: LC50 (Daphnia magna (Water flea)): 2,15 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants: EC50 (Scenedesmus subspicatus): 2,2 mg/l
Exposure time: 72 h
NOEC (Scenedesmus subspicatus): 0,32 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity): NOEC: 0,32 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Method: OECD Test Guideline 204
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 0,07 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

Ethanol:

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 1.000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Ceriodaphnia (water flea)): > 1.000 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants: ErC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
EC10 (Chlorella vulgaris (Fresh water algae)): 11,5 mg/l
Exposure time: 72 h

Toxicity to microorganisms: EC50 (Pseudomonas putida): 6.500 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 9.6 mg/l
Exposure time: 9 d
Species: Daphnia magna (Water flea)

Permethrin (ISO):
Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,00079 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,0001 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1,13 mg/l
Exposure time: 72 h
EC10 (Pseudokirchneriella subcapitata (green algae)): 0,0023 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 10.000

Toxicity to microorganisms : EC50 : > 1.000 mg/l
Exposure time: 3 h

Toxicity to fish (Chronic toxicity) : NOEC: 0,00041 mg/l
Exposure time: 35 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,0047 µg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 10.000

Formaldehyde:
Toxicity to fish : LC50 : 6,7 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 5,8 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 4,89 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 : 34,1 mg/l
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</table>

Exposure time: 120 h

Toxicity to fish (Chronic toxicity):
- NOEC: \( \geq 48 \text{ mg/l} \)
- Exposure time: 28 d
- Species: Oryzias latipes (Orange-red killifish)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC: \( \geq 6.4 \text{ mg/l} \)
- Exposure time: 21 d
- Species: Daphnia magna (Water flea)
- Method: OECD Test Guideline 211

### 12.2 Persistence and degradability

**Components:**

**Sulfuric acid, mono-C16-18-alkyl esters, sodium salts:**
- Biodegradability: Result: Readily biodegradable.
- Biodegradation: 77 %
- Exposure time: 30 d
- Method: OECD Test Guideline 301D

**Coconut oil diethanolamide:**
- Biodegradability: Result: Readily biodegradable.
- Biodegradation: 84 %
- Exposure time: 28 d
- Method: OECD Test Guideline 301D

**Ethanol:**
- Biodegradability: Result: Readily biodegradable.
- Biodegradation: 84 %
- Exposure time: 20 d

**Permethrin (ISO):**
- Biodegradability: Result: Not readily biodegradable.
- Method: OECD Test Guideline 301F

**Formaldehyde:**
- Biodegradability: Result: Readily biodegradable.
- Biodegradation: 91 %
- Exposure time: 14 d
- Method: OECD Test Guideline 301C
- Remarks: Based on data from similar materials

### 12.3 Bioaccumulative potential

**Components:**

**Coconut oil diethanolamide:**
- Partition coefficient: n-octanol/water: \( \text{log Pow: 4.2} \)
- Remarks: Based on data from similar materials
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Ethanol:
Partition coefficient: n-octanol/water : log Pow: -0,35

Permethrin (ISO):
Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 570
Partition coefficient: n-octanol/water : log Pow: 4,67

Formaldehyde:
Partition coefficient: n-octanol/water : log Pow: 0,35

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

Product:
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:
Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.
**SECTION 14: Transport information**

### 14.1 UN number or ID number

<table>
<thead>
<tr>
<th>Mode</th>
<th>Number</th>
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<tbody>
<tr>
<td>ADN</td>
<td>UN 3082</td>
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<tr>
<td>ADR</td>
<td>UN 3082</td>
</tr>
<tr>
<td>RID</td>
<td>UN 3082</td>
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<tr>
<td>IMDG</td>
<td>UN 3082</td>
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<tr>
<td>IATA</td>
<td>UN 3082</td>
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</table>

### 14.2 UN proper shipping name

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<th>Mode</th>
<th>Description</th>
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<td>ADN</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin (ISO))</td>
</tr>
<tr>
<td>ADR</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin (ISO))</td>
</tr>
<tr>
<td>RID</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin (ISO))</td>
</tr>
<tr>
<td>IMDG</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Permethrin (ISO))</td>
</tr>
<tr>
<td>IATA</td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Permethrin (ISO))</td>
</tr>
</tbody>
</table>

### 14.3 Transport hazard class(es)

<table>
<thead>
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<th>Mode</th>
<th>Class</th>
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<tbody>
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<td>ADN</td>
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<td>ADR</td>
<td>9</td>
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<tr>
<td>RID</td>
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<tr>
<td>IMDG</td>
<td>9</td>
</tr>
<tr>
<td>IATA</td>
<td>9</td>
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</table>

### 14.4 Packing group

<table>
<thead>
<tr>
<th>Mode</th>
<th>Group</th>
<th>Classification Code</th>
<th>Hazard Identification Number</th>
<th>Labels</th>
<th>Tunnel restriction code</th>
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<tr>
<td>ADN</td>
<td>III</td>
<td>M6</td>
<td>90</td>
<td>9</td>
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<tr>
<td>ADR</td>
<td>III</td>
<td>M6</td>
<td>90</td>
<td>9</td>
<td>(-)</td>
</tr>
</tbody>
</table>
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RID
Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG
Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)
Packing instruction (cargo aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous

IATA (Passenger)
Packing instruction (passenger aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous

14.5 Environmental hazards

ADN
Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes

IATA (Passenger)
Environmentally hazardous : yes

IATA (Cargo)
Environmentally hazardous : yes

14.6 Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments
Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII):
Conditions of restriction for the following entries should be considered:
Number on list 3
Formaldehyde (Number on list 72, 28)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).
Not applicable

REACH - List of substances subject to authorisation (Annex XIV):
Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:
Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast):
Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals:
Permethrin (ISO)


<table>
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<tr>
<th>E1</th>
<th>ENVIRONMENTAL HAZARDS</th>
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<tr>
<td></td>
<td>Quantity 1</td>
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<td>100 t</td>
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</table>

Other regulations:
Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.
Young people under the age of 18 are not allowed to use or be exposed to the product professionally. Young people above the age of 15 are, however, except from this rule if the product is a necessary part of their education.

The components of this product are reported in the following inventories:
AICS: not determined
DSL: not determined
IECSC: not determined

15.2 Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information
Other information:
Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements
H221: Flammable gas.
H225: Highly flammable liquid and vapour.
H228: Flammable solid.
H301: Toxic if swallowed.
H302: Harmful if swallowed.
H311: Toxic in contact with skin.
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H314 : Causes severe skin burns and eye damage.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H330 : Fatal if inhaled.
H332 : Harmful if inhaled.
H335 : May cause respiratory irritation.
H338 : Causes serious eye damage.
H339 : Causes serious eye irritation.
H330 : Fatal if inhaled.
H332 : Harmful if inhaled.
H335 : May cause respiratory irritation.
H338 : Causes serious eye damage.
H339 : Causes serious eye irritation.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Carc. : Carcinogenicity
Eye Dam. : Serious eye damage
Eye Irrit. : Eye irritation
Flam. Gas. : Flammable gases
Flam. Liq. : Flammable liquids
Flam. Sol. : Flammable solids
Muta. : Germ cell mutagenicity
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure
2004/37/EC : Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
FOR-2011-12-06-1358 : Norway. Occupational Exposure limits
2004/37/EC / STEL : Short term exposure limit
2004/37/EC / TWA : Long term exposure limit
FOR-2011-12-06-1358 / TWA : Long term exposure limit
FOR-2011-12-06-1358 / T : Ceiling

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organiza-
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<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue: 18.03.2021</th>
<th>Date of first issue: 19.03.2020</th>
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Further information


Classification of the mixture:  Classification procedure:

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NO / EN