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

Permethrin (5%) Formulation

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

1.1 Product identifier  
Trade name : Permethrin (5%) 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 Kilsheelan  
                        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)  
Skin sensitisation, Category 1 : H317: May cause an allergic skin reaction.  
Aspiration hazard, Category 1 : H304: May be fatal if swallowed and enters airways.  
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 : 

   ![Warning Symbol]

   ![Risk Symbol]

   ![Environmental symbol]

Signal word : Danger

Hazard statements :  
H304 : May be fatal if swallowed and enters airways.  
H317 : May cause an allergic skin reaction.  
H410 : Very toxic to aquatic life with long lasting effects.
Precautionary statements

Prevention:
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P391 Collect spillage.

Hazardous components which must be listed on the label:
Paraffin oils (petroleum), catalytic dewaxed light
Permethrin (ISO)

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No. EC-No. Index-No. Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffin oils (petroleum), catalytic dewaxed light</td>
<td>64742-71-8 265-176-5 649-478-00-8</td>
<td>Asp. Tox. 1; H304</td>
<td>&gt;= 70 - &lt; 90</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</td>
<td>&gt;= 2.5 - &lt; 10</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 if symptoms occur.

In case of skin contact

In case of contact, immediately flush skin with soap and 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

Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

If swallowed

If swallowed, DO NOT induce vomiting. If vomiting occurs have person lean forward. Call a physician or poison control centre immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Risks

May be fatal if swallowed and enters airways. May cause an allergic skin reaction.
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

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 spillages 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 dyeing or other appropriate containment to keep material from spreading. If dyed 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.

Local/Total ventilation: Use only with adequate ventilation.
Advice on safe handling: Do not get on skin or clothing. Avoid breathing mist or vapours. Do not swallow. Avoid contact with 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.
7.3 Specific end use(s)
Specific use(s): No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

**Occupational Exposure Limits**

<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>Paraffin oils (petroleum), catalytic dewaxed light</td>
<td>64742-71-8</td>
<td>OELV - 8 hrs (TWA) (inhalable fraction)</td>
<td>5 mg/m³</td>
<td>IE OEL</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>
</tbody>
</table>

**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>Paraffin oils (petroleum), catalytic dewaxed light</td>
<td>Oral (Secondary Poisoning)</td>
<td>9.33 mg/kg food</td>
</tr>
</tbody>
</table>

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 face shield 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: Work uniform or laboratory coat.
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: If adequate local exhaust ventilation is not available or expo-
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Version 3.6  Revision Date: 27.08.2021  SDS Number: 1965495-00010  Date of last issue: 11.03.2021
Date of first issue: 20.09.2017

Filter type: Combined particulates and organic vapour type (A-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>clear, amber</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<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>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>39 Pas</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>immiscible</td>
</tr>
<tr>
<td>Water solubility</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 2 mmHg (25 °C)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.876 (20 °C)</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**Permethrin (5%) Formulation**

**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
Components:

Paraffin oils (petroleum), catalytic dewaxed light:
- **Acute oral toxicity**: LD50 (Rat): > 5,000 mg/kg  
  Method: OECD Test Guideline 401
- **Acute inhalation toxicity**: LC50 (Rat): > 5.53 mg/l  
  Exposure time: 4 h  
  Test atmosphere: dust/mist  
  Method: OECD Test Guideline 403
- **Acute dermal toxicity**: LD50 (Rabbit): > 5,000 mg/kg  
  Method: OECD Test Guideline 402

Permethrin (ISO):
- **Acute oral toxicity**: LD50 (Rat): 480 - 554 mg/kg  
  Acute toxicity estimate: 480 mg/kg  
  Method: Calculation method
- **Acute inhalation toxicity**: LC50 (Rat): 2.3 mg/l  
  Exposure time: 4 h  
  Test atmosphere: dust/mist  
  Acute toxicity estimate: 2.3 mg/l  
  Method: Calculation method
- **Acute dermal toxicity**: LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation
Not classified based on available information.

Components:

Paraffin oils (petroleum), catalytic dewaxed light:
- **Species**: Rabbit  
  **Result**: No skin irritation

Permethrin (ISO):
- **Species**: Rabbit  
  **Result**: No skin irritation

Serious eye damage/eye irritation
Not classified based on available information.

Components:

Paraffin oils (petroleum), catalytic dewaxed light:
Species : Rabbit
Result : No eye irritation

Permethrin (ISO):
Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation
Skin sensitisation
May cause an allergic skin reaction.
Respiratory sensitisation
Not classified based on available information.

Components:
Paraffin oils (petroleum), catalytic dewaxed light:
Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
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

Germ cell mutagenicity
Not classified based on available information.

Components:
Paraffin oils (petroleum), catalytic dewaxed light:
Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
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<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Application Route</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacterial reverse mutation assay (AMES)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Mouse</td>
<td>negative</td>
</tr>
<tr>
<td>In vitro mammalian cell gene mutation test</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromosome aberration test in vitro</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromosome aberration test in vitro</td>
<td>positive</td>
<td>Intraperitoneal injection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Mouse</td>
<td>negative</td>
</tr>
<tr>
<td>Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Mouse</td>
<td>negative</td>
</tr>
<tr>
<td>Rodent dominant lethal test (germ cell) (in vivo)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Mouse</td>
<td>negative</td>
</tr>
<tr>
<td>Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Mouse</td>
<td>negative</td>
</tr>
<tr>
<td>Rodent dominant lethal test (germ cell) (in vivo)</td>
<td>negative</td>
<td>Intraperitoneal injection</td>
<td>Mouse</td>
<td>negative</td>
</tr>
</tbody>
</table>

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

Carcinogenicity
Not classified based on available information.

Components:

Paraffin oils (petroleum), catalytic dewaxed light:
Species: Mouse
Application Route: Skin contact
Exposure time : 78 weeks
Result : negative

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

Reproductive toxicity
Not classified based on available information.

Components:

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

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Repeated dose toxicity

Components:

Paraffin oils (petroleum), catalytic dewaxed light:
Species : Rat
NOAEL : >= 2,000 mg/kg
Application Route : Skin contact
Exposure time : 90 Days
Method : OECD Test Guideline 411

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

Aspiration toxicity
May be fatal if swallowed and enters airways.

Components:
Paraffin oils (petroleum), catalytic dewaxed light:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

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:
Paraffin oils (petroleum), catalytic dewaxed light:
Toxicity to fish: LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
    Exposure time: 96 h
    Test substance: Water Accommodated Fraction
    Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
    Exposure time: 48 h
    Test substance: Water Accommodated Fraction

Toxicity to algae/aquatic plants: EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
    Exposure time: 72 h
    Test substance: Water Accommodated Fraction
    Method: OECD Test Guideline 201
    NOELR (Pseudokirchneriella subcapitata (green algae)): 100 mg/l
    Exposure time: 72 h
    Test substance: Water Accommodated Fraction
    Method: OECD Test Guideline 201

Toxicity to microorganisms: NOEC: > 2.17 mg/l
Exposure time: 10 min

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

- NOELR: 10 mg/l
- Exposure time: 21 d
- Species: Daphnia (water flea)
- Test substance: Water Accommodated Fraction

**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

### 12.2 Persistence and degradability

**Components:**

**Paraffin oils (petroleum), catalytic dewaxed light:**

**Biodegradability:**

- Result: Not readily biodegradable.
- Biodegradation: 31%
- Exposure time: 28 d
- Method: OECD Test Guideline 301F

**Permethrin (ISO):**

**Biodegradability:**

- Result: Not readily biodegradable.
12.3 Bioaccumulative potential

Components:

Permethrin (ISO):
Bioaccumulation: Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 570

Partition coefficient: n-octanol/water: log Pow: 4.67

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

## Permethrin (5%) Formulation

<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>3.6</td>
<td>27.08.2021</td>
<td>1965495-00010</td>
<td>11.03.2021</td>
<td>20.09.2017</td>
</tr>
</tbody>
</table>

**ADN** : UN 3082  
**ADR** : UN 3082  
**RID** : UN 3082  
**IMDG** : UN 3082  
**IATA** : UN 3082

### 14.2 UN proper shipping name

**ADN** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
            (Permethrin (ISO))  
**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
            (Permethrin (ISO))  
**RID** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
            (Permethrin (ISO))  
**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
            (Permethrin (ISO))  
**IATA** : Environmentally hazardous substance, liquid, n.o.s.  
            (Permethrin (ISO))

### 14.3 Transport hazard class(es)

**ADN** : 9  
**ADR** : 9  
**RID** : 9  
**IMDG** : 9  
**IATA** : 9

### 14.4 Packing group

**ADN**

- Packing group : III  
- Classification Code : M6  
- Hazard Identification Number : 90  
- Labels : 9

**ADR**

- Packing group : III  
- Classification Code : M6  
- Hazard Identification Number : 90  
- Labels : 9  
- Tunnel restriction code : (-)

**RID**

- Packing group : III  
- Classification Code : M6  
- Hazard Identification Number : 90
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Permethrin (5%) Formulation

<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>3.6</td>
<td>27.08.2021</td>
<td>1965495-00010</td>
<td>11.03.2021</td>
<td>20.09.2017</td>
</tr>
</tbody>
</table>

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

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
REACH - Candidate List of Substances of Very High
SAFETY DATA SHEET
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Concern for Authorisation (Article 59).
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
REACH - List of substances subject to authorisation (Annex XIV): Not applicable

E1 ENVIRONMENTAL HAZARDS

<table>
<thead>
<tr>
<th>Quantity 1</th>
<th>Quantity 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 t</td>
<td>200 t</td>
</tr>
</tbody>
</table>

Other regulations:
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H317: May cause an allergic skin reaction.
H332: Harmful if inhaled.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.: Acute toxicity
Aquatic Acute: Short-term (acute) aquatic hazard
Aquatic Chronic: Long-term (chronic) aquatic hazard
Asp. Tox.: Aspiration hazard
Skin Sens.: Skin sensitisation
IE OEL: Ireland, List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1
IE OEL / OELV - 8 hrs (TWA): Occupational exposure limit value (8-hour reference period)
Permethrin (5%) Formulation

**Further information**
Sources of key data used to compile the Safety Data Sheet:

**Classification of the mixture:**
- **Skin Sens. 1**
  - H317
  - Calculation method
- **Asp. Tox. 1**
  - H304
  - Calculation method
- **Aquatic Acute 1**
  - H400
  - Calculation method
- **Aquatic Chronic 1**
  - H410
  - Calculation method

**Classification procedure:**
- Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their use.
intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

IE / EN