

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## K-OBIOL EC 25

|         |                |                |                                 |
|---------|----------------|----------------|---------------------------------|
| Version | Revision Date: | SDS Number:    | Date of last issue: -           |
| 1.0     | 19.04.2023     | 11204724-00001 | Date of first issue: 19.04.2023 |

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

#### 1.1 Product identifier

Trade name : K-OBIOL EC 25

Product code : Article/SKU: 79116187 UVP: 05939488 Specification:  
102000002608

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

Use of the Sub-  
stance/Mixture : Insecticide

#### 1.3 Details of the supplier of the safety data sheet

Company : 2022 Environmental Science FR S.A.S.  
For GB: Milton Hall, Ely Rd., Milton  
Cambridge CB24 6WZ, United Kingdom  
For IE/NI:  
Lyon Vaise Business Center, 3 Place Giovanni Da Verrazzano  
69009 Lyon, France

Telephone : 00800 1214 9451

E-mail address of person  
responsible for the SDS : service.clients.es.france@envu.com

#### 1.4 Emergency telephone number

For Emergency or Spill call:  
+44 20 3807 3798 (24/7 multilingual support)

IE: National Poisons Information Centre (for public):  
01 809 2166

IE: National Poisons Information Centre (for professionals):  
01 809 2566

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

|                               |                                    |
|-------------------------------|------------------------------------|
| Flammable liquids, Category 3 | H226: Flammable liquid and vapour. |
| Acute toxicity, Category 4    | H302: Harmful if swallowed.        |
| Acute toxicity, Category 4    | H332: Harmful if inhaled.          |

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|  |   |
|--|---|
| Serious eye damage, Category 1                               | H318: Causes serious eye damage.                            |
| Specific target organ toxicity - single exposure, Category 3 | H335: May cause respiratory irritation.                     |
| Specific target organ toxicity - single exposure, Category 3 | H336: May cause drowsiness or dizziness.                    |
| 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 :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
H302 + H332 Harmful if swallowed or if inhaled.  
H304 May be fatal if swallowed and enters airways.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### **Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
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.

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P391 Collect spillage.

### Hazardous components which must be listed on the label:

Hydrocarbons, C9, aromatics  
Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts  
Deltamethrin  
2-Methyl-1-propanol

### Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

### 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.

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

Vapours may form explosive mixture with air.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Emulsifiable concentrate (EC)

#### Components

| Chemical name  | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number    | Classification  | Concentration<br>(% w/w) |
|--|--|---|--------------------------|
| Hydrocarbons, C9, aromatics  | 64742-95-6<br><br>01-2119455851-35                       | Flam. Liq. 3; H226<br>STOT SE 3; H336<br>STOT SE 3; H335<br>Asp. Tox. 1; H304<br>Aquatic Chronic 2;<br>H411<br>EUH066 | >= 50 - < 70             |
| 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO) | 51-03-6<br>200-076-7<br>604-096-00-0<br>01-2119537431-46 | Eye Irrit. 2; H319<br>STOT SE 3; H335<br>Aquatic Acute 1;<br>H400   | >= 20 - < 25             |

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|---|--|--|-------------------|
|   |  | Aquatic Chronic 1;<br>H410<br>EUH066   |                   |
|   |  | M-Factor (Acute aquatic toxicity): 1<br>M-Factor (Chronic aquatic toxicity): 1                       |                   |
| Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts | 68953-96-8<br>273-234-6<br>01-2119964467-24              | Acute Tox. 4; H312<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>Aquatic Chronic 2;<br>H411          | $\geq 3 - < 10$   |
|   |  | Acute toxicity estimate  |                   |
|   |  | Acute dermal toxicity:<br>1,001 mg/kg  |                   |
| Deltamethrin  | 52918-63-5<br>258-256-6<br>607-319-00-X                  | Acute Tox. 3; H301<br>Acute Tox. 3; H331<br>Aquatic Acute 1;<br>H400<br>Aquatic Chronic 1;<br>H410   | $\geq 2.5 - < 10$ |
|   |  | M-Factor (Acute aquatic toxicity):<br>1,000,000<br>M-Factor (Chronic aquatic toxicity):<br>1,000,000 |                   |
|   |  | Acute toxicity estimate  |                   |
|   |  | Acute oral toxicity: 87 mg/kg  |                   |
| 2-Methyl-1-propanol   | 78-83-1<br>201-148-0<br>603-108-00-1<br>01-2119484609-23 | Flam. Liq. 3; H226<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>STOT SE 3; H335<br>STOT SE 3; H336  | $\geq 1 - < 3$    |

For explanation of abbreviations see section 16.

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### 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.  
If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen.  
Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water.  
Get medical attention if symptoms occur.
- 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.  
If vomiting occurs have person lean forward.  
Call a physician or poison control centre immediately.  
Rinse mouth thoroughly with water.  
Never give anything by mouth to an unconscious person.

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

- Risks : This product contains a pyrethroid.  
Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
- Harmful if swallowed or if inhaled.  
May be fatal if swallowed and enters airways.  
Causes serious eye damage.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Repeated exposure may cause skin dryness or cracking.

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

- Treatment : There is no specific antidote available.  
In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours.  
However, the application of activated charcoal and sodium sulphate is always advisable.  
Oxygen or artificial respiration if needed.

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Initial treatment: symptomatic.  
Keep respiratory tract clear.  
In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens.  
Monitor: respiratory and cardiac functions.  
Contraindication: atropine.  
Recovery is spontaneous and without sequelae.  
Contraindication: derivatives of adrenaline.  
If not effective, phenobarbital may be used.  
In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.  
Flash back possible over considerable distance.  
Vapours may form explosive mixtures with air.  
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Metal oxides  
Sulphur oxides  
Bromine compounds  
Nitrogen oxides (NO<sub>x</sub>)

#### 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.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.  
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 : Non-sparking tools should be used.  
Soak up with inert absorbent material.  
Suppress (knock down) gases/vapours/mists with a water spray jet.  
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.

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### 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 : If sufficient ventilation is unavailable, use with local exhaust ventilation.  
Use explosion-proof electrical, ventilating and lighting equipment.

Advice on safe handling : Do not get on skin or clothing.

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Avoid breathing mist or vapours.  
Do not swallow.  
Do not get in eyes.  
Wash skin thoroughly after handling.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Non-sparking tools should be used.  
Keep container tightly closed.  
Already sensitised individuals, and those susceptible to asthma, allergies, chronic or recurrent respiratory disease, should consult their physician regarding working with respiratory irritants or sensitisers.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take precautionary measures against static discharges.  
Do not eat, drink or smoke when using this product.  
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. Wash contaminated clothing before re-use.

### 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. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Advice on common storage : Do not store with the following product types:  
Strong oxidizing agents  
Self-reactive substances and mixtures  
Organic peroxides  
Flammable solids  
Pyrophoric liquids  
Pyrophoric solids  
Self-heating substances and mixtures  
Substances and mixtures, which in contact with water, emit flammable gases  
Explosives  
Gases  
Very acutely toxic substances and mixtures

### 7.3 Specific end use(s)

Specific use(s) : Refer to the label and/or leaflet.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

| Components          | CAS-No. | Value type (Form of exposure) | Control parameters              | Basis   |
|---------------------|---------|-------------------------------|---------------------------------|---------|
| 2-Methyl-1-propanol | 78-83-1 | STEL                          | 75 ppm<br>231 mg/m <sup>3</sup> | GB EH40 |
|                     |         | TWA                           | 50 ppm<br>154 mg/m <sup>3</sup> | GB EH40 |

##### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name   | End Use   | Exposure routes | Potential health effects   | Value                    |
|--|-----------|-----------------|----------------------------|--------------------------|
| 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO) | Workers   | Inhalation      | Long-term systemic effects | 3.875 mg/m <sup>3</sup>  |
|  | Workers   | Inhalation      | Acute systemic effects     | 7.75 mg/m <sup>3</sup>   |
|  | Workers   | Inhalation      | Long-term systemic effects | 3.875 mg/m <sup>3</sup>  |
|  | Workers   | Inhalation      | Acute local effects        | 3.875 mg/m <sup>3</sup>  |
|  | Workers   | Skin contact    | Long-term systemic effects | 27.7 mg/kg bw/day        |
|  | Workers   | Skin contact    | Acute systemic effects     | 55.5 mg/kg bw/day        |
|  | Workers   | Skin contact    | Long-term local effects    | 0.44 mg/cm <sup>2</sup>  |
|  | Workers   | Skin contact    | Acute local effects        | 0.888 mg/cm <sup>2</sup> |
|  | Consumers | Inhalation      | Long-term systemic effects | 1.94 mg/m <sup>3</sup>   |
|  | Consumers | Inhalation      | Acute systemic effects     | 3.875 mg/m <sup>3</sup>  |
|  | Consumers | Inhalation      | Long-term local effects    | 1.94 mg/m <sup>3</sup>   |
|  | Consumers | Inhalation      | Acute local effects        | 1.94 mg/m <sup>3</sup>   |
|  | Consumers | Skin contact    | Long-term systemic effects | 13.9 mg/kg bw/day        |
|  | Consumers | Skin contact    | Acute systemic effects     | 27.8 mg/kg bw/day        |
|  | Consumers | Skin contact    | Long-term local effects    | 0.22 mg/cm <sup>2</sup>  |
|  | Consumers | Skin contact    | Acute local effects        | 0.22 mg/cm <sup>2</sup>  |
|  | Consumers | Ingestion       | Long-term systemic effects | 1.14 mg/kg bw/day        |
|  | Consumers | Ingestion       | Acute systemic effects     | 2.3 mg/kg bw/day         |

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|---|-----------|--------------|----------------------------|-------------------|
| Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts | Workers   | Inhalation   | Long-term systemic effects | 6 mg/m3           |
|   | Workers   | Skin contact | Long-term systemic effects | 8.5 mg/kg bw/day  |
|   | Consumers | Inhalation   | Long-term systemic effects | 1.48 mg/m3        |
|   | Consumers | Skin contact | Long-term systemic effects | 4.25 mg/kg bw/day |
|   | Consumers | Ingestion    | Long-term systemic effects | 0.43 mg/kg bw/day |
| 2-Methyl-1-propanol   | Workers   | Inhalation   | Long-term local effects    | 310 mg/m3         |
|   | Consumers | Inhalation   | Long-term local effects    | 55 mg/m3          |

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name  | Environmental Compartment     | Value                          |
|---|-------------------------------|--------------------------------|
| 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO)    | Fresh water                   | 0.001 mg/l                     |
|   | Marine water                  | 0.0001 - 0.000148 mg/l         |
|   | Sewage treatment plant        | 10 mg/l                        |
|   | Fresh water sediment          | 0.019 mg/kg                    |
|   | Marine sediment               | 0.0002 mg/kg                   |
|   | Soil                          | 0.016 mg/kg                    |
|   | Oral (Secondary Poisoning)    | 12.53 mg/kg food               |
| Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts | Fresh water                   | 0.023 mg/l                     |
|   | Freshwater - intermittent     | 0.29 mg/l                      |
|   | Marine water                  | 0.002 mg/l                     |
|   | Sewage treatment plant        | 5.5 mg/l                       |
|   | Fresh water sediment          | 1.35 mg/kg dry weight (d.w.)   |
| Marine sediment   | 0.135 mg/kg dry weight (d.w.) |                                |
| Soil  | 0.124 mg/kg dry weight (d.w.) |                                |
| Deltamethrin  | Fresh water                   | 0.0007 µg/l                    |
|   | Fresh water sediment          | 0.0062 mg/kg dry weight (d.w.) |
|   | Sewage treatment plant        | 30 µg/l                        |

## 8.2 Exposure controls

### Engineering measures

Minimize workplace exposure concentrations.  
If sufficient ventilation is unavailable, use with local exhaust ventilation.  
Use explosion-proof electrical, ventilating and lighting equipment.

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### Personal protective equipment

- Eye/face protection : Wear the following personal protective equipment:  
Chemical resistant goggles must be worn.  
If splashes are likely to occur, wear:  
Face-shield  
Equipment should conform to EN 166
- Hand protection
- Material : Nitrile rubber  
Break through time : > 480 min  
Glove thickness : > 0.4 mm  
Directive : Equipment should conform to EN 374  
Protective index : Class 6
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Wear the following personal protective equipment:  
If assessment demonstrates that there is a risk of explosive atmospheres or flash fires, use flame retardant antistatic protective clothing.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.  
Equipment should conform to EN 14387
- Filter type : Combined particulates and organic vapour type (A-P)

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state : liquid
- Colour : yellow, light brown

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|--|---|--------------------------------------|
| 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                       |
| Flammability (liquids)                           | : | No data available                    |
| Upper explosion limit / Upper flammability limit | : | No data available                    |
| Lower explosion limit / Lower flammability limit | : | No data available                    |
| Flash point                                      | : | 44.00 °C<br>Method: closed cup       |
| Auto-ignition temperature                        | : | No data available                    |
| Decomposition temperature                        | : | No data available                    |
| pH   | : | >= 4.5 (23 °C)<br>Concentration: 1 % |
| Viscosity  | : |                                      |
| Viscosity, kinematic                             | : | No data available                    |
| Solubility(ies)                                  | : |                                      |
| Water solubility                                 | : | completely miscible                  |
| Partition coefficient: n-octanol/water           | : | Not applicable                       |
| Vapour pressure                                  | : | No data available                    |
| Density  | : | 0.94 g/cm <sup>3</sup> (20.00 °C)    |
| Relative vapour density                          | : | No data available                    |
| Particle characteristics                         | : |                                      |
| Particle size                                    | : | Not applicable                       |

### 9.2 Other information

|                      |   |  |
|----------------------|---|--|
| Explosives           | : | Not explosive  |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |

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Evaporation rate : No data available  
Surface tension : ca. 27.70 mN/m, 40 °C

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### 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 : Flammable liquid and vapour.  
Vapours may form explosive mixture with air.  
Can react with strong oxidizing agents.

#### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

#### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

#### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

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### 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

Harmful if swallowed or if inhaled.

#### **Product:**

Acute oral toxicity : LD50 (Rat): 710 mg/kg  
Acute inhalation toxicity : LC50 (Rat): 2.69 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

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### **Components:**

#### **Hydrocarbons, C9, aromatics:**

- Acute oral toxicity : LD50 (Rat, female): 3,492 mg/kg
- Acute inhalation toxicity : LC50 (Rat): > 6.193 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

#### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

- Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 423
- Acute inhalation toxicity : LC50 (Rat): > 5.2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402

#### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

- Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity  
Remarks: Based on data from similar materials
- Acute dermal toxicity : LD50 (Rat): > 1,000 - 2,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

#### **Deltamethrin:**

- Acute oral toxicity : LD50 (Rat, female): 87 mg/kg  
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat): 0.6 mg/l  
Exposure time: 6 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403
- Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

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### 2-Methyl-1-propanol:

Acute oral toxicity : LD50 (Rat, female): 3,350 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 18.18 mg/l  
Exposure time: 6 h  
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit, female): 2,460 mg/kg  
Method: OECD Test Guideline 402

### Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

### Product:

Species : Rabbit  
Result : No skin irritation

### Components:

#### Hydrocarbons, C9, aromatics:

Assessment : Repeated exposure may cause skin dryness or cracking.

#### 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):

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

Assessment : Repeated exposure may cause skin dryness or cracking.

#### Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:

Species : Rabbit  
Result : Skin irritation

### Deltamethrin:

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

### 2-Methyl-1-propanol:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Skin irritation

### Serious eye damage/eye irritation

Causes serious eye damage.

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### Product:

Species : Rabbit  
Result : Irreversible effects on the eye

### Components:

#### Hydrocarbons, C9, aromatics:

Species : Rabbit  
Result : No eye irritation

#### 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):

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

#### Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:

Species : Rabbit  
Result : Irreversible effects on the eye

#### Deltamethrin:

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation

#### 2-Methyl-1-propanol:

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irreversible effects on the eye

### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

### Product:

Test Type : Local lymph node assay (LLNA)  
Exposure routes : Skin contact  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : negative

### Components:

#### Hydrocarbons, C9, aromatics:

Test Type : Maximisation Test  
Exposure routes : Skin contact

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Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : negative

### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

Test Type : Maximisation Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : negative

### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

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

### **Deltamethrin:**

Test Type : Buehler Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : negative

### **2-Methyl-1-propanol:**

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

### **Germ cell mutagenicity**

Not classified based on available information.

### **Components:**

#### **Hydrocarbons, C9, aromatics:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow  
cytogenetic test, chromosomal analysis)  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative

Germ cell mutagenicity- As- : Classified based on benzene content < 0.1% (Regulation (EC))

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essment 1272/2008, Annex VI, Part 3, Note P)

### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

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

### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

### **Deltamethrin:**

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

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 473  
Result: negative

Test Type: DNA damage and repair, unscheduled DNA syn-  
thesis in mammalian cells (in vitro)  
Method: OECD Test Guideline 482  
Result: negative

### **2-Methyl-1-propanol:**

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: in vitro micronucleus test  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 474

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Result: negative

### **Carcinogenicity**

Not classified based on available information.

### **Components:**

#### **Hydrocarbons, C9, aromatics:**

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

#### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

Species : Rat  
Application Route : Ingestion  
Exposure time : 107 weeks  
Method : OECD Test Guideline 451  
Result : negative

#### **Deltamethrin:**

Species : Rat  
Application Route : Ingestion  
Method : OECD Test Guideline 453  
Result : negative

### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **Hydrocarbons, C9, aromatics:**

Effects on fertility : Test Type: Three-generation reproduction toxicity study  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Mouse  
Application Route: inhalation (vapour)  
Result: negative

#### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

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

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative

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### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

Effects on fertility : Test Type: Three-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

### **Deltamethrin:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 416  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rabbit  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

### **2-Methyl-1-propanol:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: inhalation (vapour)  
Method: OPPTS 870.3800  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: inhalation (vapour)  
Method: OECD Test Guideline 414  
Result: negative

### **STOT - single exposure**

May cause respiratory irritation.  
May cause drowsiness or dizziness.

### **Components:**

#### **Hydrocarbons, C9, aromatics:**

Assessment : May cause drowsiness or dizziness.

Assessment : May cause respiratory irritation.

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### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

Assessment : May cause respiratory irritation.

### **2-Methyl-1-propanol:**

Assessment : May cause respiratory irritation., May cause drowsiness or dizziness.

### **STOT - repeated exposure**

Not classified based on available information.

### **Components:**

#### **Deltamethrin:**

Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

### **Repeated dose toxicity**

### **Components:**

#### **Hydrocarbons, C9, aromatics:**

Species : Rat, female  
NOAEL : 900 mg/m<sup>3</sup>  
Application Route : inhalation (vapour)  
Exposure time : 12 Months  
Remarks : Based on data from similar materials

### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

Species : Rat  
NOAEL : 1,323 mg/kg  
Application Route : Ingestion  
Exposure time : 7 Weeks

### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

Species : Rat  
LOAEL : > 100 mg/kg  
Application Route : Ingestion  
Exposure time : 9 Months  
Remarks : Based on data from similar materials

#### **Deltamethrin:**

Species : Dog  
NOAEL : 1 mg/kg  
LOAEL : 10 mg/kg  
Application Route : Ingestion  
Exposure time : 52 Weeks  
Method : OECD Test Guideline 452

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### 2-Methyl-1-propanol:

Species : Rat  
NOAEL : > 1,450 mg/kg  
Application Route : Ingestion  
Exposure time : 90 Days  
Method : OECD Test Guideline 408

Species : Rat  
NOAEL :  $\geq$  7.5 mg/l  
Application Route : inhalation (vapour)  
Exposure time : 17 Weeks

### Aspiration toxicity

May be fatal if swallowed and enters airways.

#### Product:

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.

#### Components:

##### Hydrocarbons, C9, aromatics:

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.

### 2-Methyl-1-propanol:

The substance or mixture causes concern owing to the assumption that 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.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0.06 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.0075 mg/l

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aquatic invertebrates                      Exposure time: 48 h

Toxicity to algae/aquatic plants            : EC50 : > 9.10 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

### Components:

#### **Hydrocarbons, C9, aromatics:**

Toxicity to fish                                : LL50 (Oncorhynchus mykiss (rainbow trout)): 9.2 mg/l  
Exposure time: 96 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 203

Toxicity to daphnia and other            : EL50 (Daphnia magna (Water flea)): 3.2 mg/l  
aquatic invertebrates                      Exposure time: 48 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants            : EL50 (Pseudokirchneriella subcapitata (green algae)): 7.9  
mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201

NOELR (Pseudokirchneriella subcapitata (green algae)): 0.22  
mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201

Toxicity to microorganisms                : EC50 : > 99 mg/l  
Exposure time: 10 min

#### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

Toxicity to fish                                : LC50 (Cyprinodon variegatus (sheepshead minnow)): 3.94  
mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other            : EC50 (Daphnia magna (Water flea)): 0.51 mg/l  
aquatic invertebrates                      Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants            : ErC50 (Pseudokirchneriella subcapitata (green algae)): 3.89  
mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.824  
mg/l  
Exposure time: 72 h

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Method: OECD Test Guideline 201

- M-Factor (Acute aquatic toxicity) : 1
- Toxicity to microorganisms : EC50 : > 1,000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- Toxicity to fish (Chronic toxicity) : NOEC: 0.18 mg/l  
Exposure time: 35 d  
Species: Pimephales promelas (fathead minnow)
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.03 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)
- M-Factor (Chronic aquatic toxicity) : 1

### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 1 - 10 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 10 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials
- NOEC (Raphidocelis subcapitata (freshwater green alga)): > 1 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials
- Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209  
Remarks: Based on data from similar materials
- Toxicity to fish (Chronic toxicity) : NOEC: > 0.1 - 1 mg/l  
Exposure time: 72 d  
Species: Oncorhynchus mykiss (rainbow trout)  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic) : NOEC: > 1 mg/l  
Exposure time: 21 d



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Toxicity to microorganisms : EC50 : > 1,000 mg/l  
Exposure time: 16 h

Toxicity to daphnia and other : NOEC: 20 mg/l  
aquatic invertebrates (Chronic toxicity) : Exposure time: 21 d  
Species: Daphnia magna (Water flea)

### 12.2 Persistence and degradability

#### Components:

##### **Hydrocarbons, C9, aromatics:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 78 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

##### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 0 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

##### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

Biodegradability : Result: Not readily biodegradable.  
Method: OECD Test Guideline 301E  
Remarks: Based on data from similar materials

##### **Deltamethrin:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 0 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

##### **2-Methyl-1-propanol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 74 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

### 12.3 Bioaccumulative potential

#### Components:

##### **Hydrocarbons, C9, aromatics:**

Partition coefficient: n-octanol/water : log Pow: 3.7 - 4.5

##### **2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO):**

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Partition coefficient: n-octanol/water : log Pow: 5

### **Benzenesulfonic acid, mono-C11-13-branched alkyl derivatives, calcium salts:**

Partition coefficient: n-octanol/water : log Pow: 4.595  
Method: Regulation (EC) No. 440/2008, Annex, A.8

### **Deltamethrin:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Bioconcentration factor (BCF): 1,400

Partition coefficient: n-octanol/water : log Pow: 6.4

### **2-Methyl-1-propanol:**

Partition coefficient: n-octanol/water : log Pow: 1  
Method: OECD Test Guideline 117

## 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

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

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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. Do not dispose of waste into sewer.

Contaminated packaging : Follow advice on product label and/or leaflet. Empty containers retain residue and can be dangerous. Do not re-use empty containers.

Waste Code : The following Waste Codes are only suggestions:

used product  
02 01 08, agrochemical waste containing hazardous substances

unused product  
02 01 08, agrochemical waste containing hazardous substances

uncleaned packagings  
15 01 10, packaging containing residues of or contaminated by hazardous substances

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### SECTION 14: Transport information

#### 14.1 UN number or ID number

|      |           |
|------|-----------|
| ADN  | : UN 1993 |
| ADR  | : UN 1993 |
| RID  | : UN 1993 |
| IMDG | : UN 1993 |
| IATA | : UN 1993 |

#### 14.2 UN proper shipping name

|      |   |
|------|---|
| ADN  | : FLAMMABLE LIQUID, N.O.S.<br>(Deltamethrin, Hydrocarbons, C9, aromatics)   |
| ADR  | : FLAMMABLE LIQUID, N.O.S.<br>(Deltamethrin, Hydrocarbons, C9, aromatics)   |
| RID  | : FLAMMABLE LIQUID, N.O.S.<br>(Deltamethrin, Hydrocarbons, C9, aromatics)   |
| IMDG | : FLAMMABLE LIQUID, N.O.S.<br>(Deltamethrin, Hydrocarbons, C9, aromatics, 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO)) |
| IATA | : Flammable liquid, n.o.s.<br>(Deltamethrin, Hydrocarbons, C9, aromatics)   |

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### 14.3 Transport hazard class(es)

|             | Class | Subsidiary risks |
|-------------|-------|------------------|
| <b>ADN</b>  | : 3   |                  |
| <b>ADR</b>  | : 3   |                  |
| <b>RID</b>  | : 3   |                  |
| <b>IMDG</b> | : 3   |                  |
| <b>IATA</b> | : 3   |                  |

### 14.4 Packing group

|  |                     |
|--|---------------------|
| <b>ADN</b>                               |                     |
| Packing group                            | : III               |
| Classification Code                      | : F1                |
| Hazard Identification Number             | : 30                |
| Labels                                   | : 3                 |
| <b>ADR</b>                               |                     |
| Packing group                            | : III               |
| Classification Code                      | : F1                |
| Hazard Identification Number             | : 30                |
| Labels                                   | : 3                 |
| Tunnel restriction code                  | : (D/E)             |
| <b>RID</b>                               |                     |
| Packing group                            | : III               |
| Classification Code                      | : F1                |
| Hazard Identification Number             | : 30                |
| Labels                                   | : 3                 |
| <b>IMDG</b>                              |                     |
| Packing group                            | : III               |
| Labels                                   | : 3                 |
| EmS Code                                 | : F-E, <u>S-E</u>   |
| <b>IATA (Cargo)</b>                      |                     |
| Packing instruction (cargo aircraft)     | : 366               |
| Packing instruction (LQ)                 | : Y344              |
| Packing group                            | : III               |
| Labels                                   | : Flammable Liquids |
| <b>IATA (Passenger)</b>                  |                     |
| Packing instruction (passenger aircraft) | : 355               |
| Packing instruction (LQ)                 | : Y344              |
| Packing group                            | : III               |
| Labels                                   | : Flammable Liquids |

### 14.5 Environmental hazards

|                           |       |
|---------------------------|-------|
| <b>ADN</b>                |       |
| Environmentally hazardous | : yes |
| <b>ADR</b>                |       |

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Environmentally hazardous : yes

### RID

Environmentally hazardous : yes

### IMDG

Marine pollutant : 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.

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## 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, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your vendor.

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

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

Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

Product Type : Insecticides, acaricides and products to control other arthropods

Active substance : 25 g/l  
Deltamethrin

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225 g/l  
2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

|     |   | Quantity 1 | Quantity 2 |
|-----|---|------------|------------|
| E1  | ENVIRONMENTAL HAZARDS   | 100 t      | 200 t      |
| P5c | FLAMMABLE LIQUIDS   | 5,000 t    | 50,000 t   |
| 34  | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) | 2,500 t    | 25,000 t   |

### 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

H226 : Flammable liquid and vapour.  
H301 : Toxic if swallowed.  
H304 : May be fatal if swallowed and enters airways.  
H312 : Harmful in contact with skin.  
H315 : Causes skin irritation.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
H331 : Toxic if inhaled.  
H335 : May cause respiratory irritation.  
H336 : May cause drowsiness or dizziness.  
H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.  
H411 : Toxic to aquatic life with long lasting effects.

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EUH066 : Repeated exposure may cause skin dryness or cracking.

### 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                                      |
| Eye Dam.        | : Serious eye damage                                     |
| Eye Irrit.      | : Eye irritation   |
| Flam. Liq.      | : Flammable liquids                                      |
| Skin Irrit.     | : Skin irritation  |
| STOT SE         | : Specific target organ toxicity - single exposure       |
| GB EH40 / TWA   | : Long-term exposure limit (8-hour TWA reference period) |
| GB EH40 / STEL  | : Short-term exposure limit (15-minute reference period) |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - 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 Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

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### Classification of the mixture:

|                   |      |
|-------------------|------|
| Flam. Liq. 3      | H226 |
| Acute Tox. 4      | H302 |
| Acute Tox. 4      | H332 |
| Eye Dam. 1        | H318 |
| STOT SE 3         | H335 |
| STOT SE 3         | H336 |
| Asp. Tox. 1       | H304 |
| Aquatic Acute 1   | H400 |
| Aquatic Chronic 1 | H410 |

### Classification procedure:

|                                     |
|-------------------------------------|
| Based on product data or assessment |
| Calculation method                  |
| Calculation method                  |
| Based on product data or assessment |
| Based on product data or assessment |
| 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 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.

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