

CHEMICAL	Perbio Choc RTU
SITE	Regen Waste, Warrenpoint Harbour Depot
RISK ASSESSMENT CREATED BY	Wesley Jameson
DATE FOR NEXT REVIEW	November 2025



## COSHH Risk Assessment: Product Name - Perbio Choc RTU (Insecticide/Biocidal Product)

### 1. Product Information

- **Substance:** Hydrocarbons C11-C14, Piperonyl Butoxide, Permethrin, Tetramethrin
- **Form:** Liquid (Pale Yellow)
- **Primary Use:** Professional insecticide for pest control

### 2. Hazard Identification

- **Health Hazards:**
  - May be fatal if swallowed and enters airways (H304).
  - May cause skin dryness or cracking with repeated exposure (EUH066).
  - Contains sensitizing agents (EUH208).
- **Environmental Hazards:**
  - Very toxic to aquatic life with long-lasting effects (H410).

### 3. Exposure Controls

- **Engineering Controls:**
  - Ensure good ventilation in work areas to avoid inhaling vapors or mists.
- **PPE Requirements:**
  - **Eye Protection:** Safety goggles (EN 166) to protect against splashes.
  - **Hand Protection:** Nitrile Gloves
  - **Respiratory Protection:** Combination filter - ABEK1 & P3P combination
  - **Body Protection:** Type 5/6 white overalls.

### 4. Handling and Storage

- **Handling Precautions:**
  - Avoid contact with skin and eyes.
  - Do not eat, drink, or smoke when using this product.
  - Remove contaminated clothing immediately and wash before reuse.
- **Storage Requirements:**
  - Store in a cool, dry, well-ventilated area away from food, drink, and animal feed.
  - Keep containers tightly closed and in original packaging to prevent leaks.

### 5. Emergency and First Aid Measures



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<b>Hazard</b>	<b>People at Risk</b>	<b>Risk Severity</b>	<b>Likelihood</b>	<b>Total Risk Score</b>	<b>Control Measures</b>	<b>Residual Risk Score</b>
<b>Aspiration Hazard</b>	Trained Regen Waste staff	High (May be fatal if swallowed)	Medium	High	Only trained Regen Waste staff handle the chemical. Stored in a controlled COSHH store on site. Avoid ingestion; use warning signage.	<b>Medium</b>
<b>Skin Irritation</b>	Trained Regen Waste staff	Medium (May cause skin dryness or cracking)	Medium	Medium	Use of nitrile gloves and protective clothing. Only trained staff handle the chemical; handwashing facilities are provided for post-use decontamination.	<b>Low</b>
<b>Environmental Toxicity</b>	Environment	High (Very toxic to aquatic life)	Medium	High	Secure storage in a COSHH area to prevent leaks. Spill kits available, and any spillage contained and cleaned to prevent environmental contamination.	<b>Low</b>
<b>Respiratory Irritation</b>	Trained Regen Waste staff	Medium (May cause respiratory irritation)	Low	Medium	Restricted to trained staff with PPE (masks, gloves) in ventilated areas. Stored in a controlled COSHH store on-site.	<b>Low</b>
<b>Eye Damage</b>	Trained Regen Waste staff	Medium (May cause serious eye irritation)	Low	Medium	Safety goggles required during handling. Restricted handling to trained staff, and stored securely in COSHH area with emergency eyewash stations available.	<b>Low</b>

PERBIO CHOC RTU

SAFETY DATA SHEET  
(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

**1.1. Product identifier**

Product name : PERBIO CHOC RTU  
UFI : K7S1-G21N-000X-7S0N

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

Professional use  
Insecticide - biocidal use

**Use descriptor system (REACH) :**

Not available.

**1.3. Details of the supplier of the safety data sheet**

Registered company name : LODI SAS .  
Address : PA des Quatre Routes .35390.Grand-Fougeray.FRANCE.  
Telephone : 02.99.08.48.59. Fax : .  
fds@lodi.fr  
Marketing Company : LODI UK - Pensnett Trading Estate 3rd Avenue - West Midlands - DY6 7FD - Kingswinford - UNITED KINGDOM.

**1.4. Emergency telephone number : .**

Association/Organisation : National Poisons Information Service : 0344 892 0111.

**Other emergency numbers**

European poison Control Center: 112

**SECTION 2 : HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Repeated exposure may cause skin dryness or cracking (EUH066).  
May produce an allergic reaction (EUH208).  
Aspiration hazard, Category 1 (Asp. Tox. 1, H304).  
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).  
Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410).  
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

**2.2. Label elements**

Biocidal mixture (see section 15).

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :



GHS08



GHS09

Signal Word :

DANGER

Product identifiers :

EC 926-141-6 HYDROCARBURES, C11-C14, N-ALCANES, ISOALCANES, CYCLIQUES, <2% AROMATIQUES

Additional labeling :

EUH208 Contains PERMETHRIN (ISO). May produce an allergic reaction.

Hazard statements :

H304

May be fatal if swallowed and enters airways.

H410

Very toxic to aquatic life with long lasting effects.

EUH066

Repeated exposure may cause skin dryness or cracking.

Precautionary statements - Prevention :

P273

Avoid release to the environment.

Precautionary statements - Response :

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P331

Do NOT induce vomiting.

Precautionary statements - Disposal :

P501

Dispose of contents/container according to the regulation.

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**2.3. Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances >= 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures****Composition :**

Identification	Classification (EC) 1272/2008	Note	%
INDEX: 926_141_6 CAS: ^ EC: 926-141-6 REACH: 01-2119456620-43  HYDROCARBURES, C11-C14, N-ALCANES, ISOALCANES, CYCLIQUES, <2% AROMATIQUES	GHS08 Dgr Asp. Tox. 1, H304 EUH:066		50 <= x % < 100
INDEX: 51_03_6_A CAS: 51-03-6 EC: 200-076-6 REACH: 01-2119537431-46  PIPÉRONYL BUTOXYDE	GHS07, GHS09 Wng Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1 EUH:066		2.5 <= x % < 10
INDEX: 613_058_00_2 CAS: 52645-53-1 EC: 258-067-9  PERMETHRIN (ISO)	GHS07, GHS09 Wng Acute Tox. 4, H302 Skin Sens. 1, H317 Acute Tox. 4, H332 Aquatic Acute 1, H400 M Acute = 1000 Aquatic Chronic 1, H410 M Chronic = 1000		0 <= x % < 2.5
INDEX: 607-727-00-8 CAS: 7696-12-0 EC: 231-711-6  TETRAMETHRIN (ISO)	GHS07, GHS09, GHS08 Wng Acute Tox. 4, H302 Carc. 2, H351 STOT SE 2, H371 Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 100	[2]	0 <= x % < 2.5

**Specific concentration limits:**

Identification	Specific concentration limits	ATE
INDEX: 51_03_6_A CAS: 51-03-6 EC: 200-076-6 REACH: 01-2119537431-46  PIPÉRONYL BUTOXYDE		oral: ATE = 4570 mg/kg BW
INDEX: 613_058_00_2 CAS: 52645-53-1 EC: 258-067-9  PERMETHRIN (ISO)		inhalation: ATE = 4.638 mg/l 4h (dust/mist) oral: ATE = 554 mg/kg BW
INDEX: 607-727-00-8 CAS: 7696-12-0 EC: 231-711-6  TETRAMETHRIN (ISO)	STOT SE 2: H371 C>= 10%	

**Nanoform**

Not available.

**Information on ingredients :**

(Full text of H-phrases: see section 16)

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

## SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

### 4.1. description of first aid measures

#### In the event of exposure by inhalation :

Remove casualty to fresh air and keep warm and at rest. Seek medical attention if difficulties appear and persist.

#### In the event of splashes or contact with eyes :

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

#### In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

If swallowed accidentally, do not allow to drink, do not induce vomiting and transfer to hospital immediately by ambulance. Show the label to the doctor.

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

No data available.

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

#### Specific and immediate treatment :

Treat symptomatically.

#### Information for the doctor :

Treat symptomatically.

## SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

### 5.1. Extinguishing media

#### Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- carbon dioxide (CO<sub>2</sub>)

#### Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

Consult the safety measures listed under headings 7 and 8.

#### For non first aid worker

Avoid any contact with the skin and eyes.

#### For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

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## 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

## 6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

## 6.4. Reference to other sections

No data available.

# SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

## 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

## Fire prevention :

Handle in well-ventilated areas.

Never inhale this mixture.

Prevent access by unauthorised personnel.

## Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Packages which have been opened must be reclosed carefully and stored in an upright position.

## Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

## 7.2. Conditions for safe storage, including any incompatibilities

No data available.

## Storage

Keep out of reach of children.

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from food and drink, including those for animals.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

## Packaging

Always keep in packaging made of an identical material to the original.

Recommended types of packaging :

Original packaging.

Suitable packaging materials :

Original packaging.

Unsuitable packaging materials :

Different than the original packaging.

## 7.3. Specific end use(s)

No data available.

# SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1. Control parameters

No data available.

## Derived no effect level (DNEL) or derived minimum effect level (DMEL):

PIPÉRONYL BUTOXYDE (CAS: 51-03-6)

### Final use:

Exposure method:

Potential health effects:

DNEL :

Exposure method:

Potential health effects:

DNEL :

### Workers.

Dermal contact.

Long term systemic effects.

0.443 mg/kg body weight/day

Inhalation.

Long term systemic effects.

1.6 mg of substance/m3

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**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

**Consumers.**

Ingestion.  
Long term systemic effects.  
0.221 mg/kg body weight/day

Dermal contact.  
Long term systemic effects.  
0.221 mg/kg body weight/day

Inhalation.  
Long term systemic effects.  
0.388 mg of substance/m3

**Predicted no effect concentration (PNEC):**

PIPÉRONYL BUTOXYDE (CAS: 51-03-6)

Environmental compartment:  
PNEC : Soil.  
0.111 mg/kg

Environmental compartment:  
PNEC : Fresh water.  
0.00148 mg/l

Environmental compartment:  
PNEC : Sea water.  
0.000148 mg/l

Environmental compartment:  
PNEC : Fresh water sediment.  
0.043 mg/kg

Environmental compartment:  
PNEC : Marine sediment.  
0.0043 mg/kg

Environmental compartment:  
PNEC : Waste water treatment plant.  
2.89 mg/l

**8.2. Exposure controls**

**Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

**- Eye / face protection**

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

**- Hand protection**

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVA (Polyvinyl alcohol)
- Butyl Rubber (Isobutylene-isoprene copolymer)

**- Body protection**

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.



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After contact with the product, all parts of the body that have been soiled must be washed.

**- Respiratory protection**

If there is a risk of penetrating the respiratory tract, wear an A2P3 protective mask.

**> SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Physical state**

Physical state : Fluid liquid.

**Colour**

pale yellow

**Odour**

Odour threshold : Not stated.

**Melting point**

Melting point/melting range : Not relevant.

**Freezing point**

Freezing point / Freezing range : Not stated.

**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range : Not relevant.

**Flammability**

Flammability (solid, gas) : Not stated.

**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

**> Flash point**

Flash Point : 70.00 °C.

**Auto-ignition temperature**

Self-ignition temperature : Not relevant.

**Decomposition temperature**

Decomposition point/decomposition range : Not relevant.

**pH**

pH (aqueous solution) : Not stated.

pH : Not relevant.

**Kinematic viscosity**

Viscosity : Not stated.

Viscosity:  $\nu < 7 \text{ mm}^2/\text{s}$  (40°C)

**Solubility**

Water solubility : Partially soluble.

Fat solubility : Not stated.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water : Not stated.

**Vapour pressure**

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

**Density and/or relative density**

Density : 0.819

**Relative vapour density**

Vapour density : Not stated.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

## SECTION 10 : STABILITY AND REACTIVITY

### 10.1. Reactivity

Stable under normal conditions.

### 10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

### 10.3. Possibility of hazardous reactions

none in particular

### 10.4. Conditions to avoid

None.

### 10.5. Incompatible materials

None.

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

Aspiration toxicity includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration.

#### 11.1.1. Substances

##### Acute toxicity :

PERMETHRIN (ISO) (CAS: 52645-53-1)

Oral route :

LD50 = 554 mg/kg bodyweight/day

Species : Rat

OECD Guideline 423 (Acute Oral toxicity/Acute Toxic Class Method)

Dermal route :

LD50 > 2000 mg/kg bodyweight/day

Species : Rat

OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Dusts/mist) :

LC50 = 4.638 mg/l

Species : Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

Duration of exposure : 4 h

PIPÉRONYL BUTOXYDE (CAS: 51-03-6)

Oral route :

LD50 = 4570 mg/kg bodyweight/day

Species : Rat

OECD Guideline 401 (Acute Oral Toxicity)

Dermal route :

LD50 > 2000 mg/kg bodyweight/day

Species : Rabbit

OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Dusts/mist) :

LC50 > 5.9 mg/l

Species : Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

HYDROCARBURES, C11-C14, N-ALCANES, ISOALCANES, CYCLIQUES, <2% AROMATIQUES (CAS: ^)

Oral route :

LD50 > 5000 mg/kg bodyweight/day

Species : Rat

OECD Guideline 401 (Acute Oral Toxicity)

Dermal route :

LD50 > 5000 mg/kg bodyweight/day

Species : Rabbit

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Inhalation route (Vapours) :  
OECD Guideline 402 (Acute Dermal Toxicity)  
LC50 > 5000 mg/l  
Species : Rat  
OECD Guideline 403 (Acute Inhalation Toxicity)

**Respiratory or skin sensitisation :**

PERMETHRIN (ISO) (CAS: 52645-53-1)  
Guinea Pig Maximisation Test (GMPT) :  
Sensitiser.  
Species : Guinea pig  
OECD Guideline 406 (Skin Sensitisation)

**11.1.2. Mixture**

**Respiratory or skin sensitisation :**

Contains at least one sensitising substance. May cause an allergic reaction.

**Aspiration hazard :**

May be fatal if swallowed and enters airways.

Aspiration toxicity includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration.

**11.2. Information on other hazards**

**Monograph(s) from the IARC (International Agency for Research on Cancer) :**

CAS 52645-53-1 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

CAS 51-03-6 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

**SECTION 12 : ECOLOGICAL INFORMATION**

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

**12.1. Toxicity**

**12.1.1. Substances**

PERMETHRIN (ISO) (CAS: 52645-53-1)

Fish toxicity :  
LC50 = 0.009 mg/l  
Factor M = 100  
Species : Oncorhynchus mykiss  
Duration of exposure : 96 h

Crustacean toxicity :  
EC50 = 0.00064 mg/l  
Factor M = 1000  
Species : Daphnia magna  
Duration of exposure : 48 h

Algae toxicity :  
Species : Pseudokirchnerella subcapitata

PIPÉRONYL BUTOXYDE (CAS: 51-03-6)

Fish toxicity :  
LC50 = 3.94 mg/l  
Species : Cyprinodon variegatus  
Duration of exposure : 96 h

NOEC = 0.18 mg/l  
Species : Pimephales promelas

Crustacean toxicity :  
EC50 = 0.51 mg/l  
Factor M = 1  
Species : Daphnia magna  
Duration of exposure : 48 h

NOEC = 0.03 mg/l  
Factor M = 1  
Species : Daphnia magna  
Duration of exposure : 21 days

Algae toxicity :  
ECr50 = 3.89 mg/l  
Species : Selenastrum capricornutum  
Duration of exposure : 72 h

NOEC = 0.824 mg/l

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Species : *Selenastrum capricornutum*

HYDROCARBURES, C11-C14, N-ALCANES, ISOALCANES, CYCLIQUES, <2% AROMATIQUES (CAS: ^)

Fish toxicity :  
LC50 > 1000 mg/l  
Species : *Oncorhynchus mykiss*  
Duration of exposure : 96 h  
OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 0.17 mg/l  
Species : *Oncorhynchus mykiss*  
Duration of exposure : 28 days

Crustacean toxicity :  
EC50 > 1000 mg/l  
Species : *Daphnia magna*  
Duration of exposure : 48 h  
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

NOEC = 1.22 mg/l  
Species : *Daphnia magna*

Algae toxicity :  
ECr50 > 1000 mg/l  
Species : *Pseudokirchnerella subcapitata*  
Duration of exposure : 72 h  
OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC = 1000 mg/l  
Species : *Pseudokirchnerella subcapitata*  
Duration of exposure : 72 h  
OECD Guideline 201 (Alga, Growth Inhibition Test)

#### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

#### 12.2. Persistence and degradability

##### 12.2.1. Substances

PERMETHRIN (ISO) (CAS: 52645-53-1)  
Biodegradability :

Non-rapidly degradable.

PIPÉRONYL BUTOXYDE (CAS: 51-03-6)  
Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

HYDROCARBURES, C11-C14, N-ALCANES, ISOALCANES, CYCLIQUES, <2% AROMATIQUES (CAS: ^)  
Biodegradability :

Rapidly degradable.

#### 12.3. Bioaccumulative potential

##### 12.3.1. Substances

PERMETHRIN (ISO) (CAS: 52645-53-1)  
Octanol/water partition coefficient :

log K<sub>ow</sub> = 6.5

Bioaccumulation :

BCF >= 500.

PIPÉRONYL BUTOXYDE (CAS: 51-03-6)  
Octanol/water partition coefficient :

log K<sub>ow</sub> = 4.8

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

No data available.

#### 12.6. Endocrine disrupting properties

No data available.

#### 12.7. Other adverse effects

No data available.

## SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

### 13.1. Waste treatment methods

Do not pour into drains or waterways.

#### Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

#### Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

## SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

### 14.1. UN number or ID number

3082

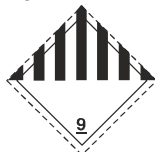
### > 14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(permethrin (iso), tetramethrin (iso))

### 14.3. Transport hazard class(es)

- Classification :



9

### 14.4. Packing group

III

### 14.5. Environmental hazards

- Environmentally hazardous material :



### 14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	-

Not subject to this regulation if Q ≤ 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 L	F-A. S-F	274 335 969	E1	Category A	-

Not subject to this regulation if Q ≤ 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197 A215	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197 A215	E1

Not subject to this regulation if Q ≤ 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(permethrin (iso))

#### 14.7. Maritime transport in bulk according to IMO instruments

No data available.

### SECTION 15: Regulatory information

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

##### Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

##### Container information:

Packaging to be fitted with child-resistant fastenings (see EC Regulation No. 1272/2008, Annex II, Part 3).

Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

##### Particular provisions :

No data available.

##### Labelling for biocidal products (Regulation (UE) n° 528/2012) :

Name	CAS	%	Product-type
PIPERONYL BUTOXYDE	51-03-6	48.27 g/kg	18
TETRAMETHRIN (ISO)	7696-12-0	6.00 g/kg	18
PERMETHRIN (ISO)	52645-53-1	6.16 g/kg	18

Product-type 18 : Insecticides, acaricides and products to control other arthropods.

#### 15.2. Chemical safety assessment

No data available.

### SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

##### Wording of the phrases mentioned in section 3 :

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer .
H371	May cause damage to organs .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

##### Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

UFI : Unique formulation identifier.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

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WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS08 : Health hazard

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.

|> Modification compared to the previous version