

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

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

#### 1.1 Product identifier

Trade name : K-OTHRINE PARTIX

Product code : Article/SKU: 88394267 UVP: 80547854 Specification:  
102000026312

#### 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)

Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Cat-	H410: Very toxic to aquatic life with long lasting

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

Category 1

effects.

### 2.2 Label elements

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

Hazard pictograms :



Signal word : Warning

Hazard statements : 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:**  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.

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

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

#### 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.

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version 1.0      Revision Date: 09.05.2023      SDS Number: 11212685-00001      Date of last issue: -  
Date of first issue: 09.05.2023

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).

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Suspension concentrate (=flowable concentrate)(SC)

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Deltamethrin	52918-63-5 258-256-6 607-319-00-X	Acute Tox. 3; H301 Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute aquatic toxicity): 1,000,000 M-Factor (Chronic aquatic toxicity): 1,000,000  Acute toxicity esti- mate  Acute oral toxicity: 87 mg/kg	>= 1 - < 2.5
Alcohols, C16-18 and C18- unsatd., ethoxylated	68920-66-1	Eye Irrit. 2; H319 Aquatic Chronic 3; H412	>= 1 - < 2.5
Alcohols, C16-18, ethoxylated	68439-49-6	Eye Irrit. 2; H319	>= 1 - < 10
Alcohols, C12-18, ethoxylated	68213-23-0	Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 3; H412  M-Factor (Acute aquatic toxicity): 1	>= 0.25 - < 1
Reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H- isothiazol-3-one [EC no. 220-239- 6] (3:1)	55965-84-9  613-167-00-5	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318	>= 0.0002 - < 0.0015

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version 1.0      Revision Date: 09.05.2023      SDS Number: 11212685-00001      Date of last issue: -  
Date of first issue: 09.05.2023

			<p>Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071</p> <hr/> <p>M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100</p> <hr/> <p>specific concentration limit Skin Corr. 1C; H314 &gt;= 0.6 % Skin Irrit. 2; H315 0.06 - &lt; 0.6 % Eye Irrit. 2; H319 0.06 - &lt; 0.6 % Skin Sens. 1A; H317 &gt;= 0.0015 % Eye Dam. 1; H318 &gt;= 0.6 % EUH071 &gt;= 0.6 %</p> <hr/> <p>Acute toxicity esti- mate</p> <p>Acute oral toxicity: 64 mg/kg Acute inhalation tox- icity (dust/mist): 0.171 mg/l Acute dermal toxicity: 87.12 mg/kg</p>
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For explanation of abbreviations see section 16.

### Alternative CAS Numbers for some regions

Chemical name	Alternative CAS Number(s)
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	2682-20-4, 26172-55-4

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### 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.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.

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

- Symptoms : sneezing  
Skin and eye paraesthesia which may be severe  
Usually transient with resolution within 24 hours  
The product causes irritation of eyes, skin and mucous membranes.  
Cough  
Dizziness  
Nausea  
hypotension  
Vomiting  
Convulsions  
Somnolence  
Diarrhoea  
Abdominal pain  
Tremors  
tachycardia  
Coma  
Headache  
discomfort in the chest  
Prostration  
anorexia

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

Blurred vision  
lethargy  
muscle twitching  
Palpitation  
Pulmonary oedema  
Airway hyperreaction

Risks : This product contains a pyrethroid.  
Pyrethroid poisoning should not be confused with carbamate  
or organophosphate poisoning.  
  
May cause an allergic skin reaction.

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

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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 : Exposure to combustion products may be a hazard to health.

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

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### 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 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
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# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version 1.0      Revision Date: 09.05.2023      SDS Number: 11212685-00001      Date of last issue: -  
Date of first issue: 09.05.2023

### 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  
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.

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

- Requirements for storage areas and containers : Keep in properly labelled containers. Store in accordance with the particular national regulations.
- Advice on common storage : Do not store with the following product types:  
Strong oxidizing agents  
Gases

### 7.3 Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propylene glycol	57-55-6	TWA (Total vapour and particles)	150 ppm 474 mg/m <sup>3</sup>	GB EH40
		TWA (particles)	10 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
Propylene glycol	Workers	Inhalation	Long-term local effects	10 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic	168 mg/m <sup>3</sup>

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version 1.0      Revision Date: 09.05.2023      SDS Number: 11212685-00001      Date of last issue: -  
Date of first issue: 09.05.2023

			effects	
	Consumers	Inhalation	Long-term local effects	10 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	50 mg/m <sup>3</sup>

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

Substance name	Environmental Compartment	Value
Propylene glycol	Fresh water	260 mg/l
	Freshwater - intermittent	183 mg/l
	Marine water	26 mg/l
	Sewage treatment plant	20000 mg/l
	Fresh water sediment	572 mg/kg dry weight (d.w.)
	Marine sediment	57.2 mg/kg dry weight (d.w.)
	Soil	50 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

Ensure adequate ventilation, especially in confined areas.  
Minimize workplace exposure concentrations.

### Personal protective equipment

Eye/face protection : Wear the following personal protective equipment:  
Safety glasses  
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.

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
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 143
- Filter type : Particulates type (P)
- 

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- Physical state : suspension
- Colour : light beige, light brown
- Odour : characteristic, very faint
- 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 : boils before flash
- Auto-ignition temperature : 465 °C
- Decomposition temperature : No data available
- pH :  $\geq 3.00$  (23 °C)  
Concentration: 100 %
- Viscosity  
Viscosity, kinematic : 24.84 - 228.48 mm<sup>2</sup>/s (20 °C)
-

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

20.76 - 192 mm<sup>2</sup>/s (25 °C)

Flow time : 35 - 45 s

Solubility(ies)  
Water solubility : completely miscible

Partition coefficient: n-  
octanol/water : Not applicable

Vapour pressure : No data available

Density : 1.02 g/cm<sup>3</sup> (20.00 °C)

Relative vapour density : No data available

Particle characteristics  
Particle size : <= 65.00 µm  
<= 22.00 µm  
>= 6.00 µm

### 9.2 Other information

Explosives : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Evaporation rate : No data available

Surface tension : 39.2 mN/m, 20 °C  
34.50 mN/m, 25 °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 : Can react with strong oxidizing agents.

### 10.4 Conditions to avoid

Conditions to avoid : None known.

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### 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

Not classified based on available information.

#### Product:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/l

#### Components:

##### **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

##### **Alcohols, C16-18, ethoxylated:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Acute oral toxicity : LD50 (Rat): 64 mg/kg

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

Acute inhalation toxicity : LC50 (Rat): 0.171 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 87.12 mg/kg

### Skin corrosion/irritation

Not classified based on available information.

#### Product:

Species : Rabbit  
Result : No skin irritation

#### Components:

##### **Deltamethrin:**

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

##### **Alcohols, C16-18, ethoxylated:**

Result : No skin irritation  
Remarks : Based on data from similar materials

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Corrosive after 1 to 4 hours of exposure

### Serious eye damage/eye irritation

Not classified based on available information.

#### Product:

Species : Rabbit  
Result : No eye irritation

#### Components:

##### **Deltamethrin:**

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

##### **Alcohols, C16-18 and C18-unsatd., ethoxylated:**

Result : Irritation to eyes, reversing within 7 days

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### Alcohols, C16-18, ethoxylated:

Result : Irritation to eyes, reversing within 7 days

### Alcohols, C12-18, ethoxylated:

Result : Irreversible effects on the eye

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Result : Irreversible effects on the eye

Remarks : Based on skin corrosivity.

### Respiratory or skin sensitisation

#### Skin sensitisation

May cause an allergic skin reaction.

#### 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 : positive

Assessment : Probability or evidence of skin sensitisation in humans

#### Components:

##### Deltamethrin:

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

##### Alcohols, C16-18, ethoxylated:

Test Type : Maximisation Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Result : negative  
Remarks : Based on data from similar materials

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Test Type : Buehler Test  
Exposure routes : Skin contact  
Species : Guinea pig

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

Result : positive

Assessment : Probability or evidence of high skin sensitisation rate in humans

### Germ cell mutagenicity

Not classified based on available information.

#### Components:

##### **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 synthesis in mammalian cells (in vitro)  
Method: OECD Test Guideline 482  
Result: negative

##### **Alcohols, C16-18, ethoxylated:**

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

### Carcinogenicity

Not classified based on available information.

#### Components:

##### **Deltamethrin:**

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

### Reproductive toxicity

Not classified based on available information.

#### Components:

##### **Deltamethrin:**

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

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

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

### STOT - single exposure

Not classified based on available information.

### 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:

#### Deltamethrin:

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

### Aspiration toxicity

Not classified based on available information.

## 11.2 Information on other hazards

### Endocrine disrupting properties

#### Product:

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

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.00015 mg/l  
Exposure time: 96 h

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.0131 µg/l  
Exposure time: 48 h  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 : > 9.10 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

### Components:

#### **Deltamethrin:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.15 µg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Gammarus fasciatus (freshwater shrimp)): 0.0003 µg/l  
Exposure time: 96 h

Toxicity to algae/aquatic plants : ErC50 (Chlorella vulgaris (Fresh water algae)): > 0.47 mg/l  
Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 1,000,000

Toxicity to microorganisms : EC50 (activated sludge): > 0.3 mg/l  
Exposure time: 3 h

Toxicity to fish (Chronic toxicity) : NOEC: 0.017 µg/l  
Exposure time: 260 d  
Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0041 µg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1,000,000

#### **Ecotoxicology Assessment**

Chronic aquatic toxicity : M-factor: 1000000  
Remarks: Based on national or regional regulation.

#### **Alcohols, C16-18 and C18-unsatd., ethoxylated:**

##### **Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

#### **Alcohols, C16-18, ethoxylated:**

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 1 - 10 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

### Alcohols, C12-18, ethoxylated:

M-Factor (Acute aquatic toxicity) : 1

### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life., M-factor: 1

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.16 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Skeletonema costatum (marine diatom)): 0.0052 mg/l  
Exposure time: 48 h

NOEC (Skeletonema costatum (marine diatom)): 0.00049 mg/l  
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 100

Toxicity to fish (Chronic toxicity) : NOEC: 0.02 mg/l  
Exposure time: 36 d  
Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.10 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 100

## 12.2 Persistence and degradability

### Components:

#### **Deltamethrin:**

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

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### Alcohols, C16-18, ethoxylated:

Biodegradability : Result: Readily biodegradable.  
Biodegradation: > 60 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 62 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

### 12.3 Bioaccumulative potential

#### Components:

##### **Deltamethrin:**

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

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

##### **Alcohols, C16-18 and C18-unsatd., ethoxylated:**

Partition coefficient: n-octanol/water : log Pow: > 4  
Remarks: Calculation

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Partition coefficient: n-octanol/water : log Pow: < 1

### 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 consid-

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

ered 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.  
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
- 

## SECTION 14: Transport information

### 14.1 UN number or ID number

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

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### 14.2 UN proper shipping name

<b>ADN</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Deltamethrin)
<b>ADR</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Deltamethrin)
<b>RID</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Deltamethrin)
<b>IMDG</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Deltamethrin)
<b>IATA</b>	:	Environmentally hazardous substance, liquid, n.o.s. (Deltamethrin)

### 14.3 Transport hazard class(es)

	Class	Subsidiary risks
<b>ADN</b>	: 9	
<b>ADR</b>	: 9	
<b>RID</b>	: 9	
<b>IMDG</b>	: 9	
<b>IATA</b>	: 9	

### 14.4 Packing group

<b>ADN</b>	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
<b>ADR</b>	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
Tunnel restriction code	: (-)
<b>RID</b>	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
<b>IMDG</b>	
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

### 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.

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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.

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

---

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

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

E1	ENVIRONMENTAL HAZARDS	Quantity 1 100 t	Quantity 2 200 t
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### Other regulations:

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

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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## 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

H301	:	Toxic if swallowed.
H310	:	Fatal in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

H330 : Fatal if inhaled.  
H331 : Toxic if inhaled.  
H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.  
H412 : Harmful to aquatic life with long lasting effects.  
EUH071 : Corrosive to the respiratory tract.

### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Aquatic Acute : Short-term (acute) aquatic hazard  
Aquatic Chronic : Long-term (chronic) aquatic hazard  
Eye Dam. : Serious eye damage  
Eye Irrit. : Eye irritation  
Skin Corr. : Skin corrosion  
Skin Sens. : Skin sensitisation  
GB EH40 / TWA : Long-term exposure limit (8-hour TWA 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; AIIIC - 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 : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

# SAFETY DATA SHEET

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



## K-OTHRINE PARTIX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.05.2023	11212685-00001	Date of first issue: 09.05.2023

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Sheet cy, <http://echa.europa.eu/>

### Classification of the mixture:

Skin Sens. 1	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

### Classification procedure:

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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