

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 UK REACH

Regulations SI 2019/758

K-OBIOL UL

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

1.1 Product identifier

Trade name : K-OBIOL ULV 6

Product code : Article/SKU: 80962487 UVP: 05939666 Specification: 102000002618

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

Use of the Sub-stance/Mixture : Insecticides, Plant protection agent

Recommended restrictions on use : Not applicable

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 - 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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.2 Label elements

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.

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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).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Ultra-low volume (ULV) liquid (UL)
 Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butoxide/PBO)	51-03-6 200-076-7 604-096-00-0 01-2119537431-46	Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH066 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 <u>Acute Tox. 3; H301</u>	>= 2.5 - < 10
Deltamethrin	52918-63-5 258-256-6 607-319-00-X	Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 <u>M-Factor (Acute aquatic toxicity): 1,000,000</u> M-Factor (Chronic aquatic toxicity): 1,000,000 <u>Acute toxicity estimate</u>	>= 0.25 - < 1

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		Acute oral toxicity: 87 mg/kg	
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For explanation of abbreviations see section 16.

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 : Wash with water and soap as a precaution.
Get medical attention if symptoms occur.
Flush eyes with water as a precaution.
- In case of eye contact : Get medical attention if irritation develops and persists.
If swallowed, DO NOT induce vomiting.
- If swallowed : Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

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.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical
- Unsuitable extinguishing media : High volume water jet

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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

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.

Specific extinguishing methods : 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.

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6.4 Reference to other sections
 See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Avoid inhalation of vapour or mist.
 Do not swallow.
 Avoid contact with eyes.
 Avoid prolonged or repeated contact with skin.
 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. 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) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

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

Substance name 2 -(2	End Use	Exposure routes	Potential health effects	Value
- Butoxyethoxy)ethyl 6-propylpiperonyl ether (Piperonyl butox-	Workers	Inhalation	Long-term systemic effects	3.875 mg/m3

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ide/PBO)				
	Workers Workers	Inhalation Inhalation	Acute systemic ef- fects	7.75 mg/m3
	Workers Workers	Skin contact Skin contact	Long-term systemic effects	3.875 mg/m3
			Acute local effects	3.875 mg/m3
	Workers Workers	Skin contact Skin contact	Long-term systemic effects	27.7 mg/kg bw/day
	Consumers Consumers	Inhalation Inhalation	Acute systemic ef- fects	55.5 mg/kg bw/day
	Consumers Consumers	Inhalation Skin contact	Long-term local ef- fects	0.44 mg/cm2
			Acute local effects	0.888 mg/cm2
	Consumers	Skin contact	Long-term systemic effects	1.94 mg/m3
			Acute systemic ef- fects	3.875 mg/m3
	Consumers Consumers	Skin contact Ingestion	Long-term local ef- fects	1.94 mg/m3
			Acute local effects	1.94 mg/m3
			Long-term systemic effects	13.9 mg/kg bw/day
			Acute systemic ef- fects	27.8 mg/kg bw/day
			Long-term local ef- fects	0.22 mg/cm2
			Acute local effects	0.22 mg/cm2
			Long-term systemic effects	1.14 mg/kg bw/day
			Acute systemic ef- fects	2.3 mg/kg bw/day

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
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.

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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 > 480 min > 0.4 mm Equipment should conform to
Break through time : EN 374
Glove thickness :
Directive : Choose gloves to protect hands against chemicals depending
Remarks : on the concentration and quantity of the hazardous sub-
stance and specific to place of work. For special applications,
we recommend clarifying the resistance to chemicals of the
aforementioned protective gloves with the glove manufactur-
er. 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 condi-
tions under which the product is used, such as the danger of
cuts, abrasion, and the contact time.

Skin contact must be avoided by using impervious protective
clothing (gloves, aprons, boots, etc).

Skin and body protection : If adequate local exhaust ventilation is not available or expo-
sure assessment demonstrates exposures outside the rec-
ommended guidelines, use respiratory protection.

Respiratory protection : Equipment should conform to EN 14387
Organic vapour type (A)

Filter type :

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid colourless, light
Colour : yellow characteristic,
Odour : very faint No data
Odour Threshold : available
Melting point/freezing point : No data available
Initial boiling point and boiling : No data available
range
Flammability (solid, gas) : Not applicable

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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	:	> 137.00 °C
Auto-ignition temperature	:	245 °C
Decomposition temperature	:	No data available
pH	:	ca. 4.5 (23 °C) Concentration: 1 %
Viscosity	:	
Viscosity, kinematic	:	No data available
Solubility(ies)	:	
Water solubility	:	immiscible
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	No data available
Density	:	0.88 g/cm ³ (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.
Evaporation rate	:	No data available
Surface tension	:	29.50 mN/m, 20 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

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10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Product:

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

Acute inhalation toxicity : LC50 (Rat): > 5.04 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 4,000 mg/kg

Components:

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

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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

Skin corrosion/irritation

Components:

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.

Deltamethrin:

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

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : No eye irritation

Components:

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

Deltamethrin:

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

Respiratory or skin sensitisation

Product:

Test Type : Magnusson-Kligman-Test

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

Components:

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

Deltamethrin:

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

Germ cell mutagenicity

Components:

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

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

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

Carcinogenicity

Components:

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

Species : Rat
Application Route : Ingestion
Exposure time : 107 weeks

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Method : OECD Test Guideline 451
Result : negative

Deltamethrin:

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

Reproductive toxicity

Components:

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

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

STOT - single exposure

Components:

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

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Components:

Deltamethrin:

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

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Repeated dose toxicity

Components:

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

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

Deltamethrin:

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

11.2 Information on other hazards

Endocrine disrupting properties

Product:

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

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.00015 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials
LC50 (Cyprinodon variegatus (sheepshead minnow)): 3.94 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)): 0.0131 µg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

EC50 (Daphnia magna (Water flea)): 0.51 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic : EC50 : > 9.1 mg/l

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plants Exposure time: 96 h
 Remarks: Based on data from similar materials

Components:

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 aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.51 mg/l
 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
 Method: OECD Test Guideline 201
 1

M-Factor (Acute aquatic toxicity) :

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

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

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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.

12.2 Persistence and degradability

Components:

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

Deltamethrin:

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

12.3 Bioaccumulative potential

Components:

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

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

Deltamethrin:

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

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

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12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

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

12.6 Endocrine disrupting properties

Product:

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

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. Do not dispose of waste into sewer.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.
- 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 3082
ADR : UN 3082
RID : UN 3082
IMDG : UN 3082
IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Deltamethrin)
ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Deltamethrin)
RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Deltamethrin)
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Deltamethrin, 2-(2-Butoxyethoxy)ethyl 6-propylpiperonyl ether
(Piperonyl butoxide/PBO))
IATA : Environmentally hazardous substance, liquid, n.o.s.
(Deltamethrin)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	: 9 9	
ADR	: 9	
RID	: 9 9	
IMDG	:	
IATA	:	

14.4 Packing group

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

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Labels	:	9
Tunnel restriction code	:	(-)
RID		
Packing group	:	III
Classification Code	:	M6
Hazard Identification Number :		90
Labels		9
IMDG		
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
IATA (Cargo)		
Packing instruction (cargo aircraft)	:	Y964 964
Packing instruction (LQ)	:	III
Packing group	:	Miscellaneous
Labels		
IATA (Passenger)		
Packing instruction (passenger aircraft)	:	Y964 964
Packing instruction (LQ)	:	III
Packing group	:	Miscellaneous
Labels		

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
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
- Active substance
- : 6 g/l
Deltamethrin
54 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.
Not applicable

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
- H301 : Toxic if swallowed.
- H319 : Causes serious eye irritation.

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H331 : Toxic if inhaled.
H335 : May cause respiratory irritation.
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.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Irrit. : Eye irritation
STOT SE : Specific target organ toxicity - single exposure

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/>

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

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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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