

SAFETY DATA SHEET

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

- 1.1. Product identifier:**
BIOPREN 6 EC bed bug and flea killer concentrate
Biopren (BFS) 6 EC bed bug and flea killer concentrate
- 1.2. Relevant identified uses of the mixture and uses advised against:**
Water-soluble insecticide against bed bugs, fleas and other hiding insects, to be used in closed area. For industrial, consumer, professional use.

Biocide product type: PT18
- 1.3. Details of the supplier of the safety data sheet:**

Information about the manufacturer and distributor:
Bábolna Bioenvironmental Centre Ltd.
H-1107 Budapest, Szállás u. 6.
Tel.: (36-1) 432-0400
- 1.3.1. Responsible person: -
E-mail: info@babolna-bio.com
- 1.4. Emergency telephone number:** +36 70 637 5436
- UK: **National Poisons Information Service (NPIS)**
NHS 111 (England), NHS 24 (Scotland) or NHS Direct (Wales) – dial 111
In Northern Ireland contact your local GP
Healthcare Professionals: UK NPIS 0344 892 0111

SECTION 2: HAZARDS IDENTIFICATION

- 2.1. Classification of the mixture:**

Classification according to Regulation (EC) No 1272/2008 (CLP):
Aspiration hazard, Hazard Category 1 – H304
Serious eye damage/eye irritation, Hazard Category 1 – H318
Sensitisation - Skin, hazard category 1 – H317
Hazardous to the aquatic environment – Acute Hazard, Category 1 – H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1 – H410
- Hazard statements:**
H304 – May be fatal if swallowed and enters airways.
H317 – May cause an allergic skin reaction.
H318 – Causes serious eye damage.
H400 – Very toxic to aquatic life.
H410 – Very toxic to aquatic life with long lasting effects.

2.2. Label elements:

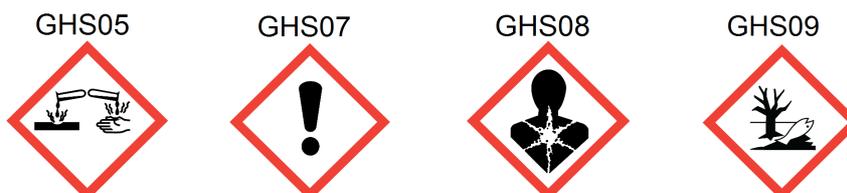
Components that define the hazards: Hydrocarbons, C₁₀-C₁₃, n-alkanes, isoalkanes, cyclics, < 2% aromatics; n-Octyl bicycloheptene dicarboximide; *Chrysanthemum cinerariaefolium*, extract from open and mature flowers of *Tanacetum cinerariifolium* obtained with hydrocarbon solvents; Benzenesulfonic acid, 4-C₁₀-14-alkyl derivates, calcium salts; Tridecyl alcohol ethoxylate

Active substance content:

S-Methoprene (CAS: 65733-16-6) 6.74 %

Chrysanthemum cinerariaefolium, extract from open and mature flowers of *Tanacetum cinerariifolium* obtained with hydrocarbon solvents (CAS: 89997-63-7) 4.81 %

Piperonylbutoxide (CAS: 51-03-6) 10.07 %



DANGER

Hazard statements:

H₃₀₄ – May be fatal if swallowed and enters airways.

H₃₁₇ – May cause an allergic skin reaction.

H₃₁₈ – Causes serious eye damage.

H₄₁₀ – Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P₂₈₀ – Wear protective gloves/protective clothing/eye protection.

P₃₀₅ + P₃₅₁ + P₃₃₈ – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P₃₀₂ + P₃₅₂ – IF ON SKIN: Wash with plenty of water and soap.

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

P₃₃₁ – Do NOT induce vomiting.

P₃₆₃ – Wash contaminated clothing before reuse.

P₃₉₁ – Collect spillage.

P₅₀₁ – Dispose of contents/container: handle as hazardous waste.

Note:

Biocide product, it should be packed/labelled according to Regulation (EU) No. 528/2012 of 22 May 2012 concerning the making available on the market and use of biocidal products.

2.3. Other hazards:

The product has no other known specific hazards for human or environment.

The components of the product do not meet the criteria on persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) substances in accordance with Annex XIII of Regulation (EC) No. 1907/2006.

Endocrine disrupting property: Based on available data, does not contain endocrine disruptors.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances:**
Not applicable.

3.2. **Mixtures:**

| Description | CAS number | EC number / ECHA list number | REACH registration number | Conc. (%) | Classification according to Regulation (EC) No 1272/2008 (CLP) | | |
|--|-------------|------------------------------|---------------------------|-----------|--|--|--|
| | | | | | Pictogram, signal word code(s) | Hazard class and category code(s) | Hazard statement code(s) |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics* | - | 918-481-9 | 01-2119457273-39 | 50 | GHS08 Danger | Asp. Tox. 1 | H304 |
| n-Octyl bicycloheptene dicarboximide* | 113-48-4 | 204-029-1 | - | 16 | GHS07 GHS09 Warning | Acute Tox. 4 Skin Sens. 1A Aquatic Chronic 2 | H332 H317 H411 |
| Piperonylbutoxide* | 51-03-6 | 200-076-7 | 01-2119537431-46 | 10.07 | GHS09 Warning | Aquatic Acute 1 Aquatic Chronic 1 | H400 H410 |
| S-Methoprene Index number: 607-725-00-7 | 65733-16-6 | - | - | 6.74 | GHS09 Warning | Aquatic Acute 1 M factor=1 Aquatic Chronic 1 M factor=1 | H400 H410 |
| <i>Chrysanthemum cinerariaefolium</i> , extract from open and mature flowers of <i>Tanacetum cinerariifolium</i> obtained with hydrocarbon solvents* | 89997-63-7 | 289-699-3 | - | 4.81 | GHS07 GHS09 Warning | Acute Tox. 4 Acute Tox. 4 Acute Tox. 4 Skin Sens. 1 Aquatic Acute 1 M factor=100 Aquatic Chronic 1 M factor=100 | H302 H312 H332 H317 H400 H410 |
| Alcohols, C12-15, branched and linear, ethoxylated* | 106232-83-1 | 932-186-2 | - | 5 | GHS07 GHS09 Warning | Eye Irrit. 2 Aquatic Acute 1 Aquatic Chronic 3 | H319 H400 H412 |
| Benzenesulfonic acid, 4-C10-14-alkyl derivatives, calcium salts* | 90194-26-6 | 290-635-1 | - | 3 | GHS05 Danger | Eye Dam. 1 | H318 |
| Tridecyl alcohol ethoxylate* | 78330-21-9 | - | - | 2 | GHS07 GHS05 Danger | Acute Tox. 4. Eye Dam.1 | H302 H318 |

*: Classification specified by the manufacturer; the substance is not listed in Annex VI of the Regulation (EC) No. 1272/2008.

For the full text of hazard statements, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

INGESTION:

Measures:

- Do not induce vomiting.
- Rinse mouth with water.

INHALATION:

Measures:

- Take the victim into fresh air.
- Loosen his clothes, let him rest and keep him warm.
- Get medical attention if feel unwell.

SKIN CONTACT:

Measures:

- Remove the contaminated clothes.
- Wash thoroughly the skin with water and soap.
- Wash contaminated clothing in normal washing program.

EYE CONTACT:

Measures:

- In case of contact with eyes flush with plenty of water holding eyelids apart (for at least 15 minutes).
- Remove contact lenses if it is easy to do.
- In case of swelling, redness, impervious vision, immediately obtain medical help.

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

Inhalation: Cough, dizziness, headache, nausea.

Skin: Dry skin and rupture in case of prolonged or repeated exposure.

Ingestion: Nausea, vomiting, pain in the lower abdomen.

Signs of entering in the lungs: Cough, asphyxia, breathing difficulties, pressure in the chest, shortness of breath, fever.

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

In case of ingestion and/or unwellness, obtain medical help.

For the first aid persons, personal protective equipment is not necessary.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

5.1.1. Suitable extinguishing media:

Dry extinguishing media, carbon dioxide, alcohol resistant foam, water spray.

5.1.2. Unsuitable extinguishing media:

Strong water jet.

5.2. Special hazards arising from the substance or mixture:

In case of fire, smoke and other combustion products (e.g. toxic gases containing carbon monoxide) may be formed; the inhalation of such combustion products can have serious adverse effects on health.

5.3. Advice for firefighters:

Wear protective clothing and self-contained breathing apparatus.

Cool the fire affected containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1. For non-emergency personnel:

Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

Wear appropriate personal protective equipment (mask with filter ("A" type) or a self-contained breathing apparatus, protective clothes, gloves, boots).

Ensure adequate ventilation.

Remove sources of ignition.

Avoid formation of sparkle.

- 6.2. **Environmental precautions:**
Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.
- 6.3. **Methods and material for containment and cleaning up:**
In case of small leakage (1-2 bottles) the room should be ventilated, and the liquid released should be collected by using absorbents, and then the place should be washed.
In case of larger leakage:
Collect the spilled product with non-combustible absorbent (dry sand or earth, grinded limestone), then place into a suitable, closed, properly labelled chemical waste container for removal/disposal.
Use only non-sparking tools during the contamination process.
Wash up with plenty of water and detergent.
- 6.4. **Reference to other sections:**
For further and detailed information see Section 7, 8 and 13.

SECTION 7: HANDLING AND STORAGE

- 7.1. **Precautions for safe handling:**
Observe conventional hygiene precautions.
Use only for killing insects and as directed in the instructions of use.
Do not spray on food, kitchen utensils and toys.
Do not spray on humans, animals, plants and bedsheets.
After the preparation has dried up, ventilate the area and the treated location is ready to use.
Do not breathe vapours.
Remove food and feed before using the product.
Do not eat, drink, or smoke when using this product.
Wash hands and face thoroughly after the use of this product.
Technical measures:
Use in well-ventilated place.
Precautions against fire and explosion:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- 7.2. **Conditions for safe storage, including any incompatibilities:**
Technical measures and storage condition:
Keep in the original container, in dry and closed place, separated from food and feed, and away from children.
Store in well-ventilated place.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
The product can be used for 2 years within the date of production if stored in the original, closed package, in dry and cool place, away from radiant heat and direct sunlight, at max. 35 °C.
Incompatible materials: see Section 10.5.
Packaging material: Plastic bottles of 0.2 L, 0.5 L, 1 L and 2 L as well as 5 L.
- 7.3. **Specific end use(s):**
Insecticide concentrate. Follow the instructions of use on the packaging.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. **Control parameters:**

Occupational exposure limit values (EH40/2005 Workplace Exposure Limits):

The components of the mixture are not regulated with exposure limit value.

| DNEL values | | Oral exposure | | Dermal exposure | | Inhalative exposure | |
|-------------|----------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
| | | Short term (acute) | Long term (chronic) | Short term (acute) | Long term (chronic) | Short term (acute) | Long term (chronic) |
| Consumer | Local | no data | no data | no data | no data | no data | no data |
| | Systemic | no data | no data | no data | no data | no data | no data |
| Worker | Local | no data | no data | no data | no data | no data | no data |
| | Systemic | no data | no data | no data | no data | no data | no data |

S-Methoprene (CAS: 65733-16-6):

| PNEC values | | |
|----------------------------------|------------------|------------|
| Compartment | Value | Note(s) |
| Freshwater | no data | no note(s) |
| Seawater | 0.00019 mg/l | no note(s) |
| Freshwater sediment | no data | no note(s) |
| Seawater sediment | no data | no note(s) |
| Wastewater Treatment Plant (STP) | 6.85 mg/l | no note(s) |
| Intermittent release | no data | no note(s) |
| Sediment | 0.0038 mg/kg wwt | no note(s) |
| Soil | 0.148 mg/kg wwt | no note(s) |

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1. Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid leaking onto clothes and floors and to avoid contact with eyes and skin.

Ensure adequate ventilation (especially in closed places).

Do not use open flame and do not smoke.

8.2.2. Individual protection measures, such as personal protective equipment:

Wear clean and properly maintained personal protective equipment.

Keep the personal protective equipment in clean place, away from the working area.

Observe the general safety regulations when handling chemicals.

Do not eat, drink, or smoke when using this product.

Wash the contaminated clothing before reuse.

1. **Eye/face protection:** Use appropriate protective glasses (EN 166).

2. **Skin protection:**

a. **Hand protection:** Use appropriate protective gloves (EN 374). Permeation time: 8 hours. Remove the gloves after using them.

b. **Other:** Use appropriate, normal protective clothing.

3. **Respiratory protection:** In case of inadequate ventilation, use appropriate gas mask with A type filter.

4. **Thermal hazards:** No thermal hazards known.

8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

| Parameter | Value / Test method / Remarks |
|---|---|
| 1. Physical state | liquid |
| 2. Colour | yellowish |
| 3. Odour, odour threshold | characteristic, petroleum-like |
| 4. Melting point/freezing point | no data* |
| 5. Boiling point or initial boiling point and boiling range | no data* |
| 6. Flammability | no data* |
| 7. Lower and upper explosion limit | 0.7 – 6 vol.% |
| 8. Flash point | >70 °C |
| 9. Auto-ignition temperature | no data* |
| 10. Decomposition temperature | no data* |
| 11. pH | not applicable |
| 12. Kinematic viscosity | no data* |
| 13. Solubility in water in other solvents | creates emulsion soluble on organic solvents |

| | |
|---|--------------|
| 14. Partition coefficient n-octanol/water (log value) | no data* |
| 15. Vapour pressure | no data* |
| 16. Density and/or relative density | 0.89 (25 °C) |
| 17. Relative vapour density | no data* |
| 18. Particle characteristics | no data* |

9.2. **Other information:**

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

Explosive properties: not explosive, its solvent creates explosive mixture with air.

Ignition temperature: >200 °C

9.2.2. **Other safety characteristics:**

No other characteristics available.

*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:**

No reactivity known.

10.2. **Chemical stability:**

The mixture is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3. **Possibility of hazardous reactions:**

In case of recommended handling and storage no hazardous reactions are expected.

10.4. **Conditions to avoid:**

Temperature below 5 °C and above 50 °C, open flame, formation of sparks.

10.5. **Incompatible materials:**

Strong oxidizing agents.

10.6. **Hazardous decomposition products:**

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: May be fatal if swallowed and enters airways.

11.1.1. **Summaries of the information derived from the test conducted:**

No data available.

11.1.2. **Relevant toxicological properties:**

Information about the product:

LD₅₀ (oral, rat): >2000 mg/kg (calculated)

LD₅₀ (dermal, rabbit): >2000 mg/kg

Information about the components:

S-Methoprene (CAS: 65733-16-6):

LD₅₀ (oral, rat): >5050 mg/kg

LD₅₀ (dermal, rabbit): >5050 mg/kg

Chrysanthemum cinerariaefolium, extract from open and mature flowers of *Tanacetum cinerariifolium* obtained with

hydrocarbon solvents (CAS: 89997-63-7):

LD₅₀ (oral, rat): >1000 mg/kg

LD₅₀ (dermal, rabbit): >5000 mg/kg

LC₅₀ (inhalative, rat): 3.4 mg/l/4 hours

- 11.1.3. Information on likely routes of exposure:**
Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:**
Inhalation: Cough, dizziness, headache, nausea.
Skin: Dry skin and rupture in case of prolonged or repeated exposure.
Ingestion: Nausea, vomiting, pain in the lower abdomen.
Signs of entering in the lungs: Cough, asphyxia, breathing difficulties, pressure in the chest, shortness of breath, fever.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:**
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.
Causes serious eye damage.
- 11.1.6. Interactive effects:**
No data available.
- 11.1.7. Absence of specific data:**
No information.
- 11.2. Information on other hazards:**
Endocrine disrupting properties:
Endocrine disrupting property: Based on available data, does not contain endocrine disruptors.
Other information:
No data available.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity:**
Short-term (acute) aquatic toxicity hazard: Very toxic to aquatic life.
Long-term (chronic) aquatic toxicity hazard: Very toxic to aquatic life with long lasting effects.
Information about the components:
S-Methoprene (CAS: 65733-16-6):
LC₅₀ (fish): 4.26 mg/l/96 hours
EC₅₀ (Daphnia magna): 0.22 mg/l/46 hours
M factor = 1
Chrysanthemum cinerariaefolium, extract from open and mature flowers of *Tanacetum cinerariifolium* obtained with hydrocarbon solvents (CAS: 89997-63-7):
LC₅₀ (fish): 5 – 10 µg/l/96 hours
EC₅₀ (Daphnia magna): 12 µg/l/46 hours
M factor = 100
Piperonylbutoxide (CAS: 51-03-6):
LC₅₀ (fish): 3.9 mg/l/96 hours
EC₅₀ (Daphnia magna): 0.51 mg/l/46 hours
M factor = 1
- 12.2. Persistence and degradability:**
No data available.
- 12.3. Bioaccumulative potential:**
No data available.
- 12.4. Mobility in soil:**
No data available.
- 12.5. Results of PBT and vPvB assessment:**
The components of the product do not meet the criteria on persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) substances in accordance with Annex XIII of Regulation (EC) No. 1907/2006.
- 12.6. Endocrine disrupting properties:**
Endocrine disrupting property: Based on available data, does not contain endocrine disruptors.
- 12.7. Other adverse effects:**
No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods:**

Disposal according to the local regulations.

13.1.1. **Information regarding the disposal of the product:**

Dispose of in accordance with applicable regulations.

Product residues and the empty packaging should be handled and disposed of as hazardous waste.

Recommended disposal method: incineration.

List of Waste Code:

No waste disposal key according to the List of Waste Code (LoW code) can be determined for this product, as only the purpose of application defined by the user enables an allocation. The LoW code number has to be determined after a discussion with a waste disposal specialist.

13.1.2. **Information regarding the disposal of the packaging:**

Dispose of in accordance with applicable regulations.

13.1.3. **Physical/chemical properties that may affect waste treatment options shall be specified:**

No data available.

13.1.4. **Sewage disposal:**

No data available.

13.1.5. **Special precautions for any recommended waste treatment:**

No data available.

SECTION 14: TRANSPORT INFORMATION

In packaging of 5 L or below it is not subject to the conventions of carriage of dangerous goods.

14.1. **UN number or ID number:**

UN 3082

14.2. **UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-Methoprene; pyrethrin)

14.3. **Transport hazard class(es):**

9

14.4. **Packing group:**

III

14.5. **Environmental hazards:**

Environmentally hazardous: Yes.

14.6. **Special precautions for user:**

No relevant information available.

14.7. **Maritime transport in bulk according to IMO instruments:**

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

15.2. **Chemical safety assessment:** Has not been carried out.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2020/878 (Section 1-16).

The composition and hazard classification of the mixture did not change compared to the previous version.

Original version prepared on 27/10/2012

Version 2:

Change in Section 12 Ecological information:

1. New Daphnia magna acute toxicity study was conducted with s-methoprene (former study measured the nominal concentration; the new study measured the actual concentration.)

Version 3: update in accordance with 1272/2008/EC (CLP regulation),
change in Section 2, Section 3, Section 15 parts of the document

Version 4: update administrative parts (830/2015/EK)

Version 5 : update Section 14

Version 6: update administrative parts (830/2015/EK)

Version 7: update S-methopren classification

Version 8: correction of CAS No. in Section 3

Version 9: update MGK and mixture classification

Version 10: update of Section 3: new name for pyrethrum, Section 9: relative density correction from 0.84 to 0.89, update Section 8

Version 11: administrative change in Section 3

Version 12: Section 1: UK emergency number

Version 13: Revised according to Regulation (EU) 2020/878

This Safety Data Sheet supersedes all previous versions according to Annex II of Regulation (EC) No 1907/2006.

Literature references / data sources:

Previous version of the safety data sheet (11. 12. 2019, version 12).

Methods used for the classification according to Regulation (EC) No 1272/2008:

| Classification | Method |
|--|-----------------------------|
| Aspiration hazard, Hazard Category 1 – H304 | Based on calculation method |
| Serious eye damage/eye irritation, Hazard Category 1 – H318 | Based on calculation method |
| Sensitisation - Skin, hazard category 1 – H317 | Based on calculation method |
| Hazardous to the aquatic environment – Acute Hazard, Category 1 – H400 | Based on calculation method |
| Hazardous to the aquatic environment – Chronic Hazard, Category 1 – H410 | Based on calculation method |

Relevant hazard statements (code and full text) of Sections 2 and 3:

H302 – Harmful if swallowed.

H304 – May be fatal if swallowed and enters airways.

H312 – Harmful in contact with skin.

H317 – May cause an allergic skin reaction.

H318 – Causes serious eye damage.

H319 – Causes serious eye irritation.

H332 – Harmful if inhaled.

H400 – Very toxic to aquatic life.

H410 – Very toxic to aquatic life with long lasting effects.

H411 – Toxic to aquatic life with long lasting effects.

H412 – Harmful to aquatic life with long lasting effects.

Training advice: no data available.

Full text of the abbreviations in the safety data sheet:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

CMR effects: Carcinogenic, mutagenic, reprotoxic effects.

COD: Chemical Oxygen Demand.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived-No-Effect-Level.

ECHA: European Chemical Agency.

EC: European Community.

EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).

EEC: European Economic Community.

EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European Norm.

EU: European Union.

EWC: European Waste Catalogue (replaced by LoW – see below).

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA: International Air Transport Association.

ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

IMO: International Maritime Organization.

IMSBC: International Maritime Solid Bulk Cargoes.

IUCLID: International Uniform Chemical Information Database.

IUPAC: International Union of Pure and Applied Chemistry.

Kow: n-Octanol - Water Partition Coefficient.

LC₅₀: Lethal concentration resulting in 50 % mortality.

LD₅₀: Lethal dose resulting in 50 % mortality (median lethal dose).

LoW: List of Waste.

LOEC: Lowest Observed Effect Concentration.

LOEL: Lowest Observed Effect Level.

NOEC: No Observed Effect Concentration.

NOEL: No Observed Effect Level.

NOAEC: No Observed Adverse Effect Concentration.

NOAEL: No Observed Adverse Effect Level.

OECD: Organization for Economic Cooperation and Development.

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, Bioaccumulative and Toxic.

PNEC: Predicted No Effect Concentration.

QSAR: Quantitative Structure Activity Relationship.

REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

SCBA: Self Contained Breathing Apparatus.

SDS: Safety Data Sheet.

STOT: Specific Target Organ Toxicity.

SVHC: Substances of Very High Concern.

UN: United Nations.

UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.

VOC: Volatile Organic Compound.

vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.

The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their circumstances and purposes and assume all risk associated with the use of this product.

It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

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