MATERIAL SAFETY DATA SHEET

Biopren 6 EC bed bug and flea killer concentrate

Date: 12/06/2014 **Version: 3**

1 IDENTIFICATION OF THE PREPARATION AND THE COMPANY

1.1. Identification of the preparation: BIOPREN 6 EC bed bug and flea killer concentrate
1. 2. The proper identified usage of the preparation: product for professionals, usage in closed area against blood sucking (bed bug, flea) and other crawling insects. To be diluted with water.
1. 3. Producer and supplier:

Bábolna Környezetbiológiai Központ Kft.
Adress: H-1107 Budapest, Szállás u. 6.
Tel.: (36-1) 432-0400
Fax.: (36-1) 432-0401
e-mail: info@babolna-bio.com

1. 4. Emergency call (0-24): +36 70 637 5436

2. HAZARDS IDENTIFICATION

2.1. Classification of the product
Classification according the 1999/45/EK Direction:
Xn: harmful, Xi:irritation, N: dangerous for the environment

Classification according the 1272/2008/EC (CLP regulation):
Serious eye damage,
Aspiration toxicity I,
Aquatic chronic 1.

2.2. Label

Danger
H304 May be fatal if swallowed and enters airways.
H318 Causes serious eye damage.
H410 Very toxic to aquatic life with long lasting effects.

P280 Wear protective gloves/protective clothing/eye protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P391 Collect spillage.
P501 Dispose of contents/container as dangerous waste

2.3. Other risks: According the Annex XIII. the mixture do not match the criteria of persistent/ bioaccumulative/toxic materials (P/B/T) nor the criteria of very persistent/ very bioaccumulative (vP/vB).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	%	EC number	CAS number	REACH Registration number	Classification according 67/548/EGK Dir.		Classification according 1272/2008/EK Dir.	
					Danger symbol	R phrases	Danger class code of category	Hazard statements
Hydrocarbons C10-C13 n-alkanes, isoalkanes, cyclic, <2% aromatics	50	918-481-9	-	01-2119457273-39-	Xn	65	Asp. Tox.1	H304
n-octyl bicycloheptene dicarboximide	16	204-029-1	113-48-4	Not available	Xn, N	20-51/53	Acut tox. 4 Aquatic Chronic 2	H332 H411
Piperonyl-butoxide	10	200-076-7	51-03-6	01-2119537431-46	N	50/53	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
S-Methoprene	7	613-834-0	65733-16-6	Not obligatory for registration	N	50	Aquatic Acute 1	H400
Natural pyrethrins	5	232-319-8	8003-34-7	Not obligatory for registration	Xn, N	20/22-50/53	Acut Tox. 4. Aquatic Acute 1 Aquatic Chronic 1	H332 H302 H400 H410
Alcohols ethoxylated,C12-15,	5	932-186-2	106232-83-1	Not obligatory for registration	Xi, N	41-50	Eye Dam.1 Aquatic Acute 1	H318 H400
Calcium dodecylbenzene sulfonate	2	247-557-8	26264-06-2	Not available	Xi	41	Eye Dam.1	H318
Tridecyl alcohol ethoxylate	2	-	78330-21-9	Not available	Xn, Xi	22-41	Acut Tox. 4. Eye Dam.1	H302 H318

The full text of R & H phrases and hazard statements are under the 16th point.

4. FIRST AID MEASURES

4.1.1.

Inhalation*:* Remove the wounded to fresh air, loosen the tight clothes, rest and keep warm. Get medical attention if feel unwell.

Skin: Remove the contaminated clothes; wash thoroughly with plenty of water then rinse with soap and water.

Eye*:* Wash out with plenty of water for a few minutes; remove the contact lenses if it's easily possible. Seek an optometrist in case of bulging, redness, and bleary eyes.

Ingestion*:* Do not induce vomiting! Wash the conscious person's mouth with plenty of water.

4.1.2. The contaminated clothes can be washed out with a normal washing program. Personal protective clothes are not required during first aid measures.

4.2. Most important symptoms and effects:

Inhalation: Coughing, dizziness, headache, nausea.

Skin contact: Prolonged or repeated contact may cause skin dryness or cracking.

Eye contact: Redness, stinging feeling, blurred vision.

Ingestion: Nausea, vomiting, abdominal pain.

Symptoms of lung exposure: Coughing, choking, wheezing, chest pain, shortness of breath, fever,

4.3. Medical treatment

Immediately get medical attention in case of ingestion!

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media:

Suitable extinguishing media: dry chemical powder, carbon dioxide, alcohol resistant foam, water mist. Use water jet to cool containers.

Unsuitable extinguishing media: strong water jet.

5.2. Special hazards: Toxic gases may form during combustion (carbon monoxide).

5.3. Advice for fire-fighters: wear self-contained breathing apparatus and usual protective clothes.

6. ACCIDENTAL RELEASE MEASURES

Small spillage (1-2 bottles): ventilate the area thoroughly, adsorb on, wash up.

Higher spillage: 6.1. Personal safety, protective equipments, emergency methods:

Personal precautions: Mask with filter ("A –type) or a self contained breathing apparatus, protective clothes, gloves, boots.

Ensure adequate ventilation! Keep out the sources of ignition, avoid formation of sparkle.

6.2. Environmental precautions:

Adsorb on with a suitable non-combustible material (sand, dry earth, etc.) and place into a closed container. Wash up with plenty of water and detergent.

7. HANDLING AND STORAGE

7.1. Safe handling: Keep away from heat, spark and other sources of ignition! Use in a well ventilated place, do not inhale the spray. Eliminate food and feed before treatment. Do not eat, drink or smoke during work. Wash hands and face after work.

7.2. Safe storage: Store in a well-ventilated room. Keep away from heat, flames, other sources of ignition. Keep away from food, feed!

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Monitoring parameters:

Exposure limits:

25/2000. (IX. 30.) EÜM-SZCSM Regulation –Chemical Safety of Workplaces. Not regulated.

There is no need for additional biological limits.

8.2. Personal precautions, protections:
Normal protective clothes, gloves: take it off after work. In the absence of suitable ventilation use face mask with filter (A-type)! Do not use naked flames and smoke!

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Physical and chemical properties:
Appearance: yellowish liquid
Odour: characteristics, petroleum
Relative density (25 °C**)**: 0,84
pH: not applicable
Melting point: no data available
Boiling point: no data available
Flash point: >70^{0}C
Explosive properties: The liquid is not explosive; the vapours form an explosive mixture with air.
Lower/upper explosion limits in air: 0,7-6 V %
Ignition temperature**: >** 200 ^{0}C
Vapour pressure: no data available
Solubility: soluble in organic solvents, forms emulsion with water.
Viscosity (20 °C): no data available
Oxidising properties: none

10. STABILITY AND REACTIVITY

10.1. Reactivity: not likely.
10.2. Chemical stability: Stable at normal usage (room temperature, pressure) and storage.
10.3. Circumstances to avoid: temperature above 50 ^{o}C, open flames, sources of ignitions.
10.4. Incompatible materials: strong oxidisers.
10.5. Hazardous decomposition: not known.

11. TOXICITY

Acute toxicity: No data available for the mixture, the calculated toxicity:
- Oral: /rat/ LD_{50}: >2000 mg/kg.
- Dermal: /rabbit/: LD_{50}: >2000 mg/kg

Irritation: may cause irritation on mucous membrane if inhaled
The product causes serious damage in case of eye contact.
Corrosive effect: none.

Properties of the ingredients:

S-methoprene:
LD_{50} acute, oral, rat: >5050 mg/kg.
LD_{50} dermal, rabbit:>5050 mg/kg
There were no sensibilisation, repeated dosage toxicity, carcinogenic, mutagenic or teratogenic effect in laboratory tests.

Natural Pyrethrins:
LD_{50} acute, oral, rat: > 1000 mg/kg.
LD_{50} dermal, rabbit :> 5000mg/kg
LC_{50} inhalation, rabbit : 3.4 mg/l (h)

12. ECOLOGICAL INFORMATION

Ingredients	Fish LC_{50} (96 h)	Daphnia EC_{50} (46 h)
S-methoprene	4,26 mg/l	0,22 mg/l
Natural Pyrethrins	5-10 μg/l	12μg/l
PBO	3,9 mg/l	0,51 mg/l

Mixture: No data available
Persistency, degradability: No data available for the mixture.
Bioaccumulation: Octanol-Water Partition Coefficient: no data available.

13. DISPOSAL CONSIDERATION

The remained mixture and the packaging should be treated and disposed as a dangerous waste. Recommended disposal: burning.

14. TRANSPORT INFORMATION

14.1. UN-number 3082
14.2. Proper shipping name according ENSZ: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (S-methoprene, nat. pyrethrum)
14.3. Danger class (es): 9
14.4. Packaging group: III.

15. REGULATORY INFORMATION

Safety, Environmental, Health protection regulations:
Decree of Europian Parliament 1907/2006/EK Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
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 (CLP)

16. OTHER INFORMATION

Full text of R and H phrases:
R20 Harmful by inhalation.
R22 Harmful if swallowed.
R20/22 Harmful by inhalation and if swallowed.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
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.

Reason for new versions:
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

End of safety data sheet