

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2020

Version number 7

Revision: 12.02.2020

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

- **1.1 Product identifier**
- Trade name: **EULAN SPA 01**
- SDS number: 700099
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Application of the substance / the mixture**
Textile auxiliary
Biocide
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**
Bos en Fauna B.V. (i.o.)
Koningsweg 35 - gebouw H
6816 TG Schaarsbergen, The Netherlands
Phone: +31 (0)6 20880395
- **Further information obtainable from:** E-mail: info@bosenfauna.nl
- **1.4 Emergency telephone number:**
Emergency phone (24/7): +32 (0)14 58 45 45

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**
 
GHS07 GHS09
- **Signal word** Warning
- **Hazard-determining components of labelling:**
Permethrin
- **Hazard statements**
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P261 Avoid breathing mist/vapours/spray.

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P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** permethrin preparation (synthetic pyrethroid)
- **Dangerous components:**

CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	30-50%
EINECS: 203-961-6	Eye Irrit. 2, H319	
Reg.nr.: 01-2119475104-44		
CAS: 99734-09-5	arylethylphenylpolyglykol ether	10-20%
Polymer	Aquatic Chronic 3, H412	
CAS: 52645-53-1	Permethrin	5-10%
EINECS: 258-067-9	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
	Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317	
- **SVHC**
- **Candidate List of Substances of Very High Concern for Authorisation (SVHC), Article 59(1) REACH regulation 1907/2006/EC**
- The product does not contain any listed substances in concentrations > 0.1%
- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air and to be sure call for a doctor.
- **After skin contact:**
Remove contaminated clothing and wash affected skin with water and soap. If symptoms persist, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **After swallowing:**
Rinse the mouth with plenty of water. DO NOT induce the patient to vomit, medical advice is required.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
Permethrin may cause paresthesia (burning and prickling of the skin without irritation). If symptoms persist: Get medical advice.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
Extinguish with carbon dioxide, dry chemical, waterspray or foam.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Use personal protective equipment (chapter 8).
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Prevent formation of aerosols.
Avoid contact with eyes and skin.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:** No special measures required.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Store container in a well-ventilated place.
 - Do not allow product temperature to drop below 0 °C.
- Storage period 24 months.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

 - 112-34-5 2-(2-butoxyethoxy)ethanol**
 - WEL Short-term value: 101.2 mg/m³, 15 ppm
 - Long-term value: 67.5 mg/m³, 10 ppm
 - **PNEC (Water)**

 - 52645-53-1 Permethrin**
 - PNEC water 0.00047 µg/l (Water)
 - PNEC Micro-organisms (STP) 100 mg/l (waste water bacteria)
 - **PNEC (sediment)**

 - 52645-53-1 Permethrin**
 - PNEC Sediment 0.001 mg/kg (Sediment)
 - **Additional information:** The lists valid during the making were used as basis.
 - **8.2 Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
 - The usual precautionary measures are to be adhered to when handling chemicals.
 - Avoid contact with the eyes and skin.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Do not eat or drink while working.
 - **Respiratory protection:**
 - In case of mist, spray or aerosol exposure wear suitable personal respiratory protection.
 - **Protection of hands:**
 - Protective gloves
 - The glove material has to be impermeable and resistant to the product.
 - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - **Material of gloves**
 - Hand protection: Wear suitable protective gloves (e.g. Polychloroprene –CR).
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and

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has therefore to be checked prior to the application.

Recommendation: contaminated gloves should be disposed of.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses with side-shields

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· **Form:** Liquid
· **Colour:** Colourless - light yellow
· **Odour:** Solvent-like

· **pH-value (10 g/l) at 20 °C:** 5.0 - 7.0

· **Change in condition**

· **Melting point/freezing point:** -60 °C
· **Initial boiling point and boiling range:** 100 °C

· **Flash point:** > 100 °C

· **Auto-ignition temperature:** Product is not self igniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Vapour pressure at 20 °C:** 23 hPa

· **Vapour pressure at 50 °C:** 113 hPa

· **Vapour pressure at 55 °C:** 143 hPa

· **Density at 20 °C:** ~1.0 g/cm³

· **Solubility in / Miscibility with water:** Fully miscible.

· **Viscosity:**

· **Dynamic at 20 °C:** < 50 mPas

· **9.2 Other information** The above information is not intended for use in preparing product specifications.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known.

· **10.4 Conditions to avoid** No further relevant information available.

· **10.5 Incompatible materials:** No further relevant information available.

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- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**

 - Oral LD50 > 2000 mg/kg (rat)
 - Dermal LD50 > 2000 mg/kg (rat)
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritation at the skin will be expected.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**

 - EC50 > 10000 mg/l (waste water bacteria)
 - 0.18 mg/l (Daphnia Magna, 24h)
 - EC0 0.01 mg/l (Daphnia Magna, 24h)
 - EC100 3.2 mg/l (Daphnia Magna, 24h)
 - LC50 0.18 mg/l (Brachydanio Rerio, 96h)
 - LC0 0.1 mg/l (Brachydanio Rerio, 96h)
 - LC100 0.32 mg/l (Brachydanio Rerio, 96h)
- **12.2 Persistence and degradability** Not easily biodegradable
- **Biological degradability:**

 - OECD 301D: 5 % (Closed Bottle)
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
Inhibition of activity of waste water bacteria:
No inhibitory effects at 10000 mg/l.
Test procedure: Respiratory inhibition of activated sludge organisms according to D. Brown et al., Chemosphere, 10(3), 245-261 (1981), and conforming to OECD Guideline 209

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· **Remark:** Very toxic for fish

· **Other information:**

For risk assessment data on active ingredient permethrin: °

Very toxic to aquatic organisms.

Acute fish toxicity: LC50: 0,62–314 µg/l

Test species: Rainbow trout

Duration of test: 96 h

Toxicity for Daphnia:

EC50: 0,2–0,6 µg/l

Duration of test: 48 h

EC50: 22 µg/l

Duration of test: 24 h

Test species: Daphnia magna

Inhibition of activity of waste water bacteria:

No inhibitory effects at 100 mg/l.

° Environmental Health Criteria 94, Permethrin, World Health Organization, Geneva, 1990

· **Additional ecological information:**

· **COD-value:** 1940 mg/g

· **BOD5-value:** 97 mg/g

· **General notes:**

Product may add with max. 1.8 % to the AOX-value of the sewage. (DIN EN 1485)

The product does not contain heavy metals in concentrations of concern for waste water.

The product does not release nitrogen which can contribute to eutrophication.

The product does not contain phosphates or organophosphorus compounds.

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Danger to drinking water if even extremely small quantities leak into the ground.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Very toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Do not discharge residual liquors directly into the receiving water but only after sufficient dilution and via a biological sewage treatment plant. In the case of residual liquors with high product concentrations, for example from continuous processes in which the starting concentration is maintained constant during the whole operation, the active ingredient must be decomposed by means of an alkaline solution before discharge of the residual liquors.

Method: pH value 10 – 12 (with caustic soda)
 5 – 20 minutes at 60 °C

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Rinse empty containers with plenty of water and add the rinsing water gradually to the treatment bath.

Product residues and uncleaned empty containers should be packaged, sealed, labelled and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).

- **Uncleaned packaging:**
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR/RID/ADN, IMDG, IATA** UN3082
- **14.2 UN proper shipping name**
- **ADR/RID/ADN** 3082 ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (Permethrin)
- **IMDG** ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (Permethrin),
MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (Permethrin)
- **14.3 Transport hazard class(es)**
- **ADR/RID/ADN, IMDG, IATA**
-  
- **Class** 9 Miscellaneous dangerous substances and
articles.
- **Label** 9
- **14.4 Packing group**
- **ADR/RID/ADN, IMDG, IATA** III
- **14.5 Environmental hazards:** Product contains environmentally hazardous
substances: Permethrin
- **Marine pollutant:** Yes
Symbol (fish and tree)
- **Special marking (ADR/RID/ADN):** Symbol (fish and tree)
- **Special marking (IATA):** Symbol (fish and tree)
- **14.6 Special precautions for user** Warning: Miscellaneous dangerous substances
and articles.
- **Hazard identification number (Kemler code):** 90
- **EMS Number:** F-A,S-F
- **Stowage Category** A

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- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.
- **Transport/Additional information:** Keep separated from foodstuffs.

- **ADR/RID/ADN**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **Transport category** 3
- **Tunnel restriction code** E

- **IMDG**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

- **IATA**
- **Remarks:** Max. Qty per Pkg Passenger and Cargo Aircraft: Not restricted
Max. Qty per Pkg Cargo Aircraft: Not restricted
- **UN "Model Regulation":** UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN), 9, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **Regulation (EU) No 649/2012**
52645-53-1 PermethrinAnnex I Part 1
- **National regulations:**
- **REGULATION (EU) No. 528/2012, concerning the making available on the market and use of biocidal products**
Authorisation number: UK-2019-1215
- **Other regulations, limitations and prohibitive regulations**
- **Annex XIV : List of Substances Subject to Authorisation (SVHC), REACH regulation 1907/2006/EC:**
The product does not contain any listed substances in concentrations > 0.1%

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· **Annex XVII : Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles, REACH regulation 1907/2006/EC:**

The product, when used as specified in chapter 1 of this MSDS, does not contain any listed substances in concentrations which are restricted by this Annex.

· **Information on international registration status for chemicals**

The components of this product are listed in, or comply with, the following substance inventories:

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

* **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
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.
H412 Harmful to aquatic life with long lasting effects.

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· **Department issuing SDS:** Product safety department.

· **Contact:**

Specialist Product Stewardship & Regulatory Affairs
E-mail: hsetanatex@tanatexchemicals.com

· **Abbreviations and acronyms:**

Acute Tox. 4: Acute toxicity - oral – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· * **Data compared to the previous version altered.**