

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

- **1.1 Product identifier**
- **Trade name:** *Enviro Cleaner*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** *Cleaning agent/ Cleaner*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 STARMARINE
IJsvogelstraat 1
3145XP Maassluis
The Netherlands
Tel: +31-(0)10-5925831
Fax: +31-(0)10-5902995
- **Further information obtainable from:** *Safety Department*
- **1.4 Emergency telephone number:**
+31(0)10-5925831 (office hours)
+31(0)30-2748888 (outside office hours, Nationaal Vergiftigen Informatie Centrum (for medical staff only))

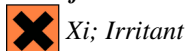
SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

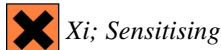


- Skin Irrit. 2 H315 Causes skin irritation.*
- Eye Irrit. 2 H319 Causes serious eye irritation.*
- Skin Sens. 1 H317 May cause an allergic skin reaction.*
- Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.*

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



R38-41: Irritating to skin. Risk of serious damage to eyes.



R43: May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **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*
- **Signal word** *Warning*
- **Hazard-determining components of labelling:**
Dodecylsulfonic acid
(R)-p-mentha-1,8-diene
2-aminoethanol

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· Hazard statements

- H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face 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.
 P321 Specific treatment (see on this label).
 P362 Take off contaminated clothing and wash before reuse.
 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:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 68439-46-3 Polymer	Alcohol ethoxylate Xn R22; Xi R41 ----- Eye Dam. 1, H318; Acute Tox. 4, H302	2.5-10%
CAS: 85536-14-7 EINECS: 287-494-3 Reg.nr.: 01-2119490234-40	Dodecylsulfonic acid C R34; Xn R22 ----- Skin Corr. 1B, H314; Acute Tox. 4, H302; Aquatic Chronic 3, H412	2.5-10%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol Xn R20/21/22; Xi R36/38 ----- Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-10%
EC number: 198-481-9 Reg.nr.: 01-2119457273-39	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics Xn R65 R66 ----- Asp. Tox. 1, H304	2.5-10%
CAS: 141-43-5 EINECS: 205-483-3 Reg.nr.: 01-2119486455-28	2-aminoethanol C R34; Xn R20/21/22 R18 ----- Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335; Aquatic Chronic 3, H412	2.5-10%
CAS: 5989-27-5 EINECS: 227-813-5 Reg.nr.: 01-2119529223-47	(R)-p-mentha-1,8-diene Xi R38; Xi R43; N R50/53 R10 ----- Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317	≤ 2.5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.

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- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dilute with plenty water.
Ensure adequate ventilation.
- **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**
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **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:** None.
- **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.

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· 8.1 Control parameters**· Ingredients with limit values that require monitoring at the workplace:****111-76-2 2-butoxyethanol**

WEL	Short-term value: 246 mg/m ³ , 50 ppm Long-term value: 123 mg/m ³ , 25 ppm Sk, BMGV
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141-43-5 2-aminoethanol

WEL	Short-term value: 7.6 mg/m ³ , 3 ppm Long-term value: 2.5 mg/m ³ , 1 ppm Sk
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· Ingredients with biological limit values:**111-76-2 2-butoxyethanol**

BMGV	240 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: butoxyacetic acid
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· Additional information: The lists valid during the making were used as basis.**· 8.2 Exposure controls****· Personal protective equipment:****· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Not necessary if room is well-ventilated.

· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

EN374

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.

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 has therefore to be checked prior to the application.

· 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:

Tightly sealed goggles

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· **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:	Light yellow
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value at 20 °C:	9
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· Change in condition

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	101 °C

· Flash point:	Not applicable.
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· Flammability (solid, gaseous):	Not applicable.
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· Ignition temperature:

· Decomposition temperature:	Not determined.
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· Self-igniting:	Product is not selfigniting.
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· Danger of explosion:	Product does not present an explosion hazard.
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· Explosion limits:

· Lower:	Not determined.
· Upper:	Not determined.

· Vapour pressure at 20 °C:	23 hPa
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· Density at 20 °C:	0.99 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
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· Partition coefficient (n-octanol/water):	Not determined.
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· Viscosity:

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· 9.2 Other information	No further relevant information available.
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SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 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:**

- **LD/LC50 values relevant for classification:**

5989-27-5 (R)-p-mentha-1,8-diene

Oral	LD50	>5700 mg/kg (rat)
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Dermal	LD50	>2000 mg/kg (rabbit)
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- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitisation:** Sensitisation possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

5989-27-5 (R)-p-mentha-1,8-diene

Biodegradability	>92%, 28d (-)
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EC50/ 48 h	34.1 mg/l (daphnia)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

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

Harmful to 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**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 - Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
 - Hazard pictograms GHS07
 - Signal word Warning
 - Hazard-determining components of labelling:
Dodecylsulfonic acid
(R)-p-mentha-1,8-diene
2-aminoethanol
 - Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
 - Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face 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.
P321 Specific treatment (see on this label).
P362 Take off contaminated clothing and wash before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
 - National regulations:
 - Technical instructions (air):
- | Class | Share in % |
|-------|------------|
| NK | 2,5-10 |
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not 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**

- H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 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.
- R10 Flammable.
 R18 In use, may form flammable/explosive vapour-air mixture.
 R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 R22 Harmful if swallowed.
 R34 Causes burns.
 R36/38 Irritating to eyes and skin.
 R38 Irritating to skin.
 R41 Risk of serious damage to eyes.
 R43 May cause sensitisation by skin contact.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R65 Harmful: may cause lung damage if swallowed.
 R66 Repeated exposure may cause skin dryness or cracking.

· **Department issuing MSDS:** Safety Department· **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Flam. Liq. 3: Flammable liquids, Hazard Category 3
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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