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

1.1 **Product identifier**
Product name: Alkoclean Exotica

1.2 **Relevant identified uses of the substance or mixture and uses advised against**
Alcohol-based cleaner

1.3 **Details of the supplier of the safety data sheet**
Company: Otto Oehme GmbH
Industriestraße 20
D-90584 Allersberg Deutschland
Tel. +49 9176 98050
info@oehme-lorito.de

1.4 **Emergency telephone number**
GIZ Nord Poisons Center, Göttingen Tel. +49 (0) 551 19240

**SECTION 2: Hazards identification**

2.1 **Classification of the substance or mixture**
*Classification (Regulation (EC) No. 1272/2008)*
Eye Irrit. 2, H319

Full text of hazard statements: See under section 16.

*Classification (67/548/EEC or 1999/45/EC)*

Full text of R-Phrases: See under section 16.

2.2 **Label elements**
*Labelling (Regulation (EC) No. 1272/2008)*
*Hazard pictograms:*

![Hazard pictogram]

**Signal word:**
Warning

**Hazard statements:**
H319 Causes serious eye irritation.
EUH208 Contains: D-Limonene. May produce an allergic reaction.
Precautionary statements:
P280 Wear protective gloves/eye protection.
P337 + P313 If eye irritation persists: Get medical advice/attention.

Labelling (67/548/EEC or 1999/45/EC)
Symbol: ---
R-phrases: ---
S-phrases: ---
Contains: D-Limonene. May produce an allergic reaction.

2.3 Other hazards
Not known.

SECTION 3: Composition / information on ingredients

Solution in water.

Hazardous components (Regulation (EC) No. 1272/2008)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Content</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>EC-Index-No.</th>
<th>Labelling according to EC-Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>&lt;10 %</td>
<td>64-17-5</td>
<td>200-578-6</td>
<td>603-002-00-5</td>
<td>Flam. Liq. 2, H225 Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>Isotridecanol, ethoxylated</td>
<td>&lt;5 %</td>
<td>69011-36-5</td>
<td>NLP 500-241-6</td>
<td></td>
<td>Eye Dam. 1, H318 Acute Tox. 4, H302</td>
</tr>
<tr>
<td>Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., potassium salts (*)</td>
<td>&lt;5 %</td>
<td>84961-78-4</td>
<td>284-669-6</td>
<td></td>
<td>Sk. Irr. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>D-Limonene</td>
<td>0.1 – &lt;1 %</td>
<td>5989-27-5</td>
<td>227-813-5</td>
<td>601-029-00-7</td>
<td>Flam. Liq. 3, H226 Sk. Irr. 2, H315 Sk. Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

REACH Registration Number: 01-211957610-13
REACH Registration Number: 02-2119552461-55-0000
REACH Registration Number: 01-2119529223-47

Full text of hazard statements: See under section 16.
### Hazardous components (1999/45/EC)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>EC-Index-No.</th>
<th>Labelling according to EC-Directives</th>
<th>Content</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>200-578-6</td>
<td>603-002-00-5</td>
<td>F</td>
<td>&lt;10 %</td>
<td>01-2119457610-43</td>
</tr>
<tr>
<td>Isotridecanol, ethoxylated</td>
<td>69011-36-5</td>
<td>NLP 500-241-6</td>
<td>Xn</td>
<td></td>
<td>&lt;5 %</td>
<td>02-2119552461-55-0000</td>
</tr>
<tr>
<td>Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., potassium salts (*)</td>
<td>84961-78-4</td>
<td>284-669-6</td>
<td>Xn</td>
<td></td>
<td>&lt;5 %</td>
<td></td>
</tr>
<tr>
<td>D-Limonene</td>
<td>5989-27-5</td>
<td>227-813-5</td>
<td>601-029-00-7</td>
<td>Xi, N</td>
<td>0.1 – &lt;1 %</td>
<td>01-2119529223-47</td>
</tr>
</tbody>
</table>

Full text of R-Phrases: see under section 16.

(*) A registration number is not available for this substance as the substance or its use is exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- **After inhalation:** Fresh air. Call in physician if feeling unwell.
- **After skin contact:** Wash off with plenty of water. Remove contaminated clothing. Consult a physician if skin irritations occur.
- **After eye contact:** Rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist.
- **After swallowing:** Make victim drink plenty of water (two glasses at most), avoid vomiting. Call in physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

Irritant effects, respiratory paralysis, dermatitis, narcosis, inebriation, euphoria, nausea, vomiting. Drying-out effect resulting in rough and chapped skin.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.
SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Carbon dioxide, foam, dry powder.

Unsuitable extinguishing media
For this substance / mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Contains combustible material. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters
Special protective equipment for firefighters
Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Further information
Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Caution: Risk of slipping.
Do not inhale vapours/aerosols. Avoid substance contact. Use personal protective equipment as required, see section 8.2. Ensure supply of fresh air in enclosed rooms. In case of inadequate ventilation wear respiratory protection.

6.2 Environmental precautions
Do not allow to enter sewerage system.

6.3 Methods and material for containment and cleaning up
Take up with incombustible liquid-absorbent material. Forward for disposal. Clean up affected area.

6.4 Reference to other sections
Indications about waste treatment see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Notes for safe handling
Ensure adequate ventilation. Avoid contact with skin and eyes. Do not inhale vapours/aerosols.
Avoid generation of vapours/aerosols.

Notes for prevention of fire and explosion
Not required.
7.2 Conditions for safe storage, including any incompatibilities
Store cool above 5 °C. Keep away from sun and heat. 
Tightly closed in a well-ventilated place.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Ethanol EH40 WEL</th>
<th>Ethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time weighted average (TWA)</td>
<td>1000 ppm</td>
<td>1920 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

*Individual protection measures*
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

**Eye / face protection:**
Tightly fitting safety goggles (EN 166).

**Hand protection:**
Glove material: Nitrile rubber.
Details on the penetration time have to be asked by the manufacturer.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374.

**Other protective equipment**
Acid-resistant protective clothing.

**Respiratory protection:**
Required when vapours/aerosols are generated. Filter A2 P2 (EN 14387).

**Hygiene measures**
Change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Form</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>blue</td>
</tr>
<tr>
<td>Odour</td>
<td>perfumed</td>
</tr>
<tr>
<td>pH value</td>
<td>~ 6</td>
</tr>
</tbody>
</table>
**SECTION 10: Stability and reactivity**

**10.1 Reactivity**
Forms explosive mixtures with air on intense heating.

**10.2 Chemical stability**
The product is chemically stable under standard ambient conditions (room temperature).

**10.3 Possibility of hazardous reactions**
Risk of explosion/exothermic reaction with:
- Hydrogen peroxide, perchlorates, perchloric acid, nitric acid, mercury(II) nitrate, permanganic acid, nitriles, peroxi compounds, strong oxidizing agents, nitrosyl compounds, peroxides, sodium, potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, chlorine, alkali metals, alkaline earth metals, alkali oxides, ethylene oxide potassium permanganate, sulfuric acid.

Risk of ignition or formation of inflammable gases or vapours with:
- Halogen-halogen compounds, chromium(VI) oxide, chromyl chloride, fluorine, hydrides, oxides of phosphorus, platinum.

**10.4 Conditions to avoid**
Warming.

**10.5 Incompatible materials**
- Rubber, various plastics.
- Corrosive substances, halogenes, bases, acids, reactive chemicals.

**10.6 Hazardous decomposition products**
See section 5.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

*Acute oral toxicity*

- LD₅₀ rat: 10470 mg/kg (OECD 401; Ethanol)
- Symptoms: Nausea, vomiting.

- LD₅₀ rat: 1470 mg/kg (external MSDS; Benzenesulfonic acid, 4-C₁₀-13-sec-alkyl derivs.)
- LD₅₀ rat: 500 - 2000 mg/kg (OECD 423; Isotridecanol, ethoxylated)
LD_{50} rat: >2000 mg/kg (external MSDS; D-Limonene)

**Acute dermal toxicity**
Symptoms: Dermatitis, drying-out effect resulting in rough and chapped skin.
LD_{50} rat: >2000 mg/kg (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
LD_{50} rabbit: >2000 mg/kg (external MSDS; D-Limonene)

**Acute inhalation toxicity**
LC_{50} rat: 124.7 mg/l /4 h vapour (OECD 403; Ethanol)
Symptoms: Slight mucosal irritations, absorption.

**Skin irritation**
Rabbit: No irritation (OECD 404; Ethanol).
Rabbit: No irritation (OECD 404; Isotridecanol, ethoxylated).
Corrosive (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
Causes severe skin burns.
Rabbit: Irritations (external MSDS; D-Limonene).
Causes skin irritation.

**Eye irritation**
Rabbit: Eye irritation (OECD 405; Ethanol).
Causes serious eye irritation.
Rabbit: Eye irritation (OECD 405; Isotridecanol, ethoxylated).
Corrosive (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.).
Causes serious eye damage.
Rabbit: Eye irritation (external MSDS; D-Limonene).

**Sensitisation**
Sensitisation test (Magnusson and Kligman): Negative (IUCLID; Ethanol).
Guinea pig: Positive (external MSDS; D-Limonene).
May cause an allergic skin reaction.

**Genotoxicity in vitro**
Ames test: Salmonella typhimurium: Negative (National Toxicology Program; Ethanol).
Mutagenicity (mammal cell test): Mouse lymphoma test: Negative (OECD 476; Ethanol).
Ames test: Negative (external MSDS; D-Limonene).

**Specific target organ toxicity – single exposure**
The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific target organ toxicity – repeated exposure**
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Aspiration hazard**
No aspiration toxicity classification.

**11.2 Further information**
Systemic effects: Euphoria.
After absorption of large quantities: Dizziness, inebriation, narcosis, respiratory paralysis.
After absorption of large quantities: CNS disorders. Possible damage to: Kidney.

Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.
SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish
Leuciscus idus LC50: 8140 mg/l /48 h (IUCLID; Ethanol)
Lepomis macrochirus LC50: 1-10 mg/l /96 h (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
Leuciscus idus LC50: 1-10 mg/l /96 h (external MSDS; Isotridecanol, ethoxylated)
Pimephales promelas LC50: 0.70 mg/l /96 h (external MSDS; D-Limonene).

Toxicity to daphnia and other aquatic invertebrates
Daphnia magna: EC50: 9268-14221 mg/l /48 h (IUCLID; Ethanol)
Entosiphon sulcatum: EC5: 65 mg/l /72 h (maximum permissible toxic concentration; external MSDS; Ethanol)
Daphnia sp. EC50: 1-10 mg/l /48 h (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
Aquadatic invertebrates: EC50: 1-10 mg/l /48 h (external MSDS; Isotridecanol, ethoxylated)
Daphnia magna: EC50: 0.42 mg/l /48 h (external MSDS; D-Limonene).

Toxicity to algae
Scenedesmus quadricauda: IC50: 5000 mg/l / 7 d (maximum permissible toxic concentration; external MSDS; Ethanol)
EC50: 1-10 mg/l (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.).
EC50: 1-10 mg/l /72 h (external MSDS; Isotridecanol, ethoxylated)

Toxicity to bacteria
Pseudomonas putida EC5: 6500 mg/l /16 h (maximum permissible toxic concentration; IUCLID; Ethanol)
Activated sludge: EC10: >10000 mg/l /17 h (DIN 38412 (8); Isotridecanol, ethoxylated)

12.2 Persistence and degradability

Biodegradability
The surfactants contained in this preparation complies with the Biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.
Data to support this assertion are held at the disposal of the competent authorities of the member states and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Biodegradation: 94 % (OECD 301E; Ethanol)
Readily biodegradable (Ethanol)
Biodegradation: >60 % /28 d (OECD 301B; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
Readily biodegradable (Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
Biodegradation: >60 % /28 d (OECD 301B; Isotridecanol, ethoxylated)
Readily biodegradable (Isotridecanol, ethoxylated)
Biodegradation: 41-98 % /14 d (OECD 301 C; D-Limonene)
Readily biodegradable (D-Limonene)
Biodegradation: 93.8 % /14 d (OECD 303 A; D-Limonene)

Biochemical oxygen demand (BOD)
930-1670 mg/g /5 d (external MSDS; Ethanol)

Chemical oxygen demand (COD)
1990 mg/g (IUCLID; Ethanol)
**Theoretical oxygen demand (ThOD)**
2100 mg/g (external MSDS; Ethanol)

**Ratio BOD / ThBOD**
BOD₅: 74 % (IUCLID; Ethanol)

**Ratio COD / ThBOD**
90 % (external MSDS; Ethanol)

### 12.3 Bioaccumulative potential
Partition coefficient: n-octanol / water: log P OW: -0.31 (external MSDS; Ethanol).
No bioaccumulation is to be expected (Ethanol).
No bioaccumulation is to be expected (external MSDS; Isotridecanol, ethoxylated).
Biocnentration factor: > 100 (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.).
Partition coefficient: n-octanol / water: log P OW: 4.23 (external MSDS; D-Limonene).
A remarkable bioaccumulation potential is expected (D-Limonene).

### 12.4 Mobility in soil
No information available.

### 12.5 Results of PBT and vPvB assessment
PBT / vPvB assessment not available as chemical safety assessment not required / not conducted.

### 12.6 Other adverse effects
**Additional ecological information:**
COD: 2.1 g/g (external MSDS; Isotridecanol, ethoxylated).

Do not allow to enter waters, waste water, or soil!

---

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

*Product:
Chemicals must be disposed of in compliance with the respective national regulations.*

<table>
<thead>
<tr>
<th>Code of the waste</th>
<th>Name according to directive 2000/532/EC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>200129*</td>
<td>detergents containing dangerous substances.</td>
</tr>
<tr>
<td>070601*</td>
<td>aqueous washing liquids and mother liquors.</td>
</tr>
</tbody>
</table>

*Packaging:
Product packaging must be disposed of in compliance with the country-specific regulations or must be to a packaging return system.*

<table>
<thead>
<tr>
<th>Code of the waste</th>
<th>Name according to directive 2000/532/EC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>200139</td>
<td>plastics.</td>
</tr>
</tbody>
</table>

---

**SECTION 14: Transport information**

Not classified as dangerous in the meaning of transport regulations.
SECTION 15: Regulatory information

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

EU regulations
Ingredients according to Regulation (EC) on detergents No. 648/2004:
Non-ionic surfactants: Less than 5 %
Anionic surfactants: Less than 5 %
Perfumes. Limonene, linalool citral.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Reason for alteration:
SECTION 6: Accidental release measures
SECTION 10: Stability and reactivity
SECTION 11: Toxicological information

Full text of hazard statements referred to under sections 2 and 3:
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye 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.

Full text of R phrases referred to under sections 2 and 3:
10 Flammable.
11 Highly flammable.
22 Harmful if swallowed.
38 Irritating to skin.
41 Risk of serious damage to eyes.
43 May cause sensitisation by skin contact.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.