SAFETY DATA SHEET

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

1.1. Product identifier
   Trade name
   Eco Clean Limescale Free and Clear
   Product no.
   -

   REACH registration number
   Not applicable

1.2. Relevant identified uses of the substance or mixture and uses advised against

   Relevant identified uses of the substance or mixture
   - NA
   - Washing and Cleaning Products (including solvent based products) (PC35)
   - Nonindustrial spraying (PROC 11)
   - Formulation [mixing] of preparations and/or re-packaging (excluding alloys) (SU 10)
   - Consumer uses: Private households (= general public = consumers) (SU 21)
   - Formulation of preparations (ERC2)
   - Stone, plaster, cement, glass and ceramic articles (AC4)
   - Metal articles (AC7)

   Uses advised against
   - The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

   Company and address
   Eco Clean Nordic Aps
   Kronprinsensgade 1 2nd floor
   1114 Copenhagen
   Denmark

   Contact person
   Tommy W. Andersen

   E-mail
   info@ecnordic.com

   SDS date
   2018-09-27

   SDS Version
   3.1

1.4. Emergency telephone number

   Contact the National Poisons Information Service (dial 111, 24 h service). See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

   Eye Irrit. 2; H319
   See full text of H-phrases in section 2.2.

2.2. Label elements

   Hazard pictogram(s)
   -

   Signal word
   Warning
According to EC-Regulation 2015/830

**Hazard statement(s)**
Causes serious eye irritation. (H319)

**Safety statement(s)**

- **General**
  If medical advice is needed, have product container or label at hand. (P101).
  Keep out of reach of children. (P102).

- **Prevention**
  If eye irritation persists: Get medical advice/attention. (P337+P313).

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

**Identity of the substances primarily responsible for the major health hazards**
Not applicable

**2.3. Other hazards**
Not applicable

**Additional labelling**
Not applicable

**Additional warnings**
Not applicable

**VOC**
Not applicable

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**SECTION 3: Composition/information on ingredients**

3.1/3.2. Substances/Mixtures

- **NAME:** Citric acid
- **IDENTIFICATION NOS.:**
  - CAS-no: 5949-29-1
  - EC-no: 2119457026-42-0000
- **CONTENT:** 2.5 - <5%
- **CLP CLASSIFICATION:**
  - Eye Irrit. 2: H319

(*) See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

- ATEmix(oral) > 2000
- Detergent:
  - < 5%: CITRIC ACID, NON-IONIC SURFACTANTS, ANIONIC SURFACTANTS, AMPHOTERIC SURFACTANTS, SODIUM HYDROXIDE

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**SECTION 4: First aid measures**

4.1. Description of first aid measures

- **General information**
  In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service (dial 111, 24 h service). Contact a doctor if in doubt about the injured person’s condition or if the symptoms persist. Never give an unconscious person water or other drink.

- **Inhalation**
  No specific requirements.

- **Skin contact**
  Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with soap and water. Skin cleanser can be used. DO NOT use solvents or thinners.

- **Eye contact**
  Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure to flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

- **Ingestion**
  Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical...
advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

**Burns**
Not applicable

4.2. **Most important symptoms and effects, both acute and delayed**
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. **Indication of any immediate medical attention and special treatment needed**
**Information to medics**
Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. **Extinguishing media**
No specific requirements.

5.2. **Special hazards arising from the substance or mixture**
Nothing special

5.3. **Advice for firefighters**
Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
No specific requirements.

6.2. **Environmental precautions**
No specific requirements.

6.3. **Methods and material for containment and cleaning up**
No specific requirements.

6.4. **Reference to other sections**
See section on “Disposal considerations” in regard of handling of waste. See section on ‘Exposure controls/personal protection’ for protective measures.

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**
No specific requirements.

7.2. **Conditions for safe storage, including any incompatibilities**
Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

**Storage temperature**
No data available.

7.3. **Specific end use(s)**
This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

**OEL**
No substances are listed in The Control of Substances Hazardous to Health Regulations with an occupational exposure limit.

**DNEL / PNEC**
No data available

8.2. **Exposure controls**
Control is unnecessary if the product is used as intended.

**General recommendations**
Observe general occupational hygiene standards.

**Exposure scenarios**
According to EC-Regulation 2015/830

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

**Exposure limits**
Occupational exposure limits have not been defined for the substances in this product.

**Appropriate technical measures**
Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

**Hygiene measures**
In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

**Measures to avoid environmental exposure**
No specific requirements.

**Individual protection measures, such as personal protective equipment**

**Generally**
Use only CE marked protective equipment.

**Respiratory Equipment**
No specific requirements.

**Skin protection**
No specific requirements.

**Hand protection**
Recommended: Nitrile rubber

**Eye protection**
No specific requirements.

**SECTION 9: Physical and chemical properties**

*9.1. Information on basic physical and chemical properties*

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour threshold (ppm)</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>2.5</td>
</tr>
<tr>
<td>Viscosity (40°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Phase changes</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Boiling point (°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Evaporation rate (n-butylacetate = 100)</td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Data on fire and explosion hazards</strong></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Ignition (°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Auto flammability (°C)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosion limits (% v/v)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td></td>
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<tr>
<td>Solubility in water</td>
<td>Soluble</td>
</tr>
<tr>
<td>n-octanol/water coefficient</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

*9.2. Other information*

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility in fat (g/L)</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

*10.1. Reactivity*
No data available
10.2. Chemical stability
The product is stable under the conditions, noted in the section “Handling and storage”.

10.3. Possibility of hazardous reactions
Nothing special

10.4. Conditions to avoid
Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products
The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Substance: Citric acid
Species: Rat
Test: LD50
Result: >2000mg/kg

Substance: Citric acid
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 11700 mg/kg

Substance: Citric acid
Species: Mouse
Test: LD50
Route of exposure: Oral
Result: 5400 mg/kg

Substance: Citric acid
Species: Mouse
Test: LD50
Route of exposure: Intraperitoneal
Result: 940 mg/kg

Substance: Citric acid
Species: Rat
Test: LD50
Route of exposure: Intraperitoneal
Result: 725 mg/kg

Skin corrosion/irritation
No data available.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

STOT-single exposure
No data available.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Long term effects
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.
SECTION 12: Ecological information

12.1. Toxicity
Substance: Citric acid
Species: Fish
Test: LC50
Duration: 48 h
Result: 440 mg/l

Substance: Citric acid
Species: Daphnia
Test: LC50
Duration: 24 h
Result: 1535 mg/l

Substance: Citric acid
Species: Algae
Test: LC50
Duration: 168 h
Result: 425 mg/l

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Biodegradability</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid</td>
<td>Yes</td>
<td>Modified OECD Screening Test</td>
<td>100%</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Potential bioaccumulation</th>
<th>LogPow</th>
<th>BCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid</td>
<td>No</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment
This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects
Nothing special

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product is not covered by regulations on dangerous waste.

Waste
- EWC code: 20 01 29*
detergents containing dangerous substances

Specific labelling
- 

Contaminated packing
Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4
Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID
- 14.1. UN number
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- Notes
- Tunnel restriction code

IMDG
- UN-no.
- Proper Shipping Name
- Class
- PG
- EmS
According to EC-Regulation 2015/830

MP** - Hazardous constituent -

IATA/ICAO
- UN-no. -
- Proper Shipping Name -
- Class -
- PG* -

14.5. Environmental hazards
-

14.6. Special precautions for user
-

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No data available

(*) Packing group
(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application
-

Demands for specific education
-

Additional information
Not applicable The surfactant(s) contained in this preparation complies(comply) 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.

Seveso
-

Sources
EC regulation 1907/2006 (REACH).

15.2. Chemical safety assessment
No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3
H319 - Causes serious eye irritation.

The full text of identified uses as mentioned in section 1
PC35 = Washing and Cleaning Products (including solvent based products)
PROC 11 = Nonindustrial spraying
SU 10 = Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU 21 = Consumer uses: Private households (= general public = consumers)
ERC2 = Formulation of preparations
AC4 = Stone, plaster, cement, glass and ceramic articles
AC7 = Metal articles

Additional label elements
Not applicable

Other
In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:
The classification of the mixture in regard of health hazards are in accordance with the calculation methods
According to EC-Regulation 2015/830

given by Regulation (EC) No. 1272/2008 (CLP)

The classification of the mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by Regulation (EC) No. 1272/2008 (CLP). It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by KAO

Date of last essential change
(First cipher in SDS version)
2018-04-03(3.0)

Date of last minor change
(Last cipher in SDS version)
2018-04-03