SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

ACTICHLOR 2.5g NaDCC

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name : ACTICHLOR 2.5g NaDCC
Product code : 111911E
Use of the Substance/Mixture : Disinfectant
Substance type: : Mixture

For professional users only.

Product dilution information : No dilution information provided.

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

Identified uses : Surface disinfectant. Manual process
Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Ecolab Ltd.
PO Box 11; Winnington Avenue
Northwich, Cheshire, United Kingdom CW8 4DX
+ 44 (0)1606 74488
ccs@ecolab.com

1.4 Emergency telephone number

Emergency telephone number : Food & Beverage, Institutional, Agriculture, Textile Hygiene:
Northwich: +44 (0)1606 74488
Healthcare Leeds: +44 (0)113 232 2480
Healthcare Swansea: +44 (0)1252 717616

Poison Information Centre telephone number : Not Available

Date of Compilation/Revision : 09.10.2014
Version : 1.0

Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity , Category 4 H302
Eye irritation , Category 2 H319
Specific target organ toxicity - single exposure , Category 3, H335
Respiratory system
Acute aquatic toxicity , Category 1 H400
Chronic aquatic toxicity , Category 1 H410
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Classification (67/548/EEC, 1999/45/EC)

Xn: HARMFUL R22
N: DANGEROUS FOR THE ENVIRONMENT R36/37 R50/53 R31

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms:

Signal Word: Warning

Hazard Statements:
- H302: Harmful if swallowed.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.
- H410: Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements:
- EUH031: Contact with acids liberates toxic gas.

Precautionary Statements:
- Prevention:
  - P273: Avoid release to the environment.
  - P280e: Wear eye protection/face protection.

Hazardous components which must be listed on the label:
trocolsene sodium

2.3 Other hazards

None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>trocolsene sodium</td>
<td>2893-78-9 220-767-7</td>
<td>E-N-O-Xi-Xn: R02-R22-R31-R36/37-R08-R50/53</td>
<td>Oxidizing solidsCategory 2; Acute toxicityCategory 4; Eye irritationCategory 2; H319 Specific target organ toxicity - single exposureCategory 3; H335 Acute aquatic</td>
<td>&gt;= 50 - &lt;= 100</td>
</tr>
</tbody>
</table>
Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Exposure to decomposition products may be a hazard to health.

Hazardous combustion products: Decomposition products may include the following materials: Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Oxides of phosphorus.
5.3 Advice for firefighters

Special protective equipment for firefighters: Use personal protective equipment.

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Environmental precautions: Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See Section 1 for emergency contact information. For personal protection see section 8. See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Do not ingest. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Use only with adequate ventilation. Wash hands thoroughly after handling.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature: 0 °C to 25 °C

7.3 Specific end uses
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Specific use(s) : Surface disinfectant. Manual process

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Engineering measures : Effective exhaust ventilation system Maintain air concentrations below occupational exposure standards.

Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

Eye/face protection (EN 166) : Safety glasses with side-shields

Hand protection (EN 374) : Gloves

Skin and body protection (EN 14605) : No special protective equipment required.

Respiratory protection (EN 143, 14387) : None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, 89/686/EEC ), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance : solid

Colour : white

Odour : Chlorine

pH : 4.5 - 7.5, 1 %

Flash point : Not applicable.

Odour Threshold : no data available

Melting point/freezing point : no data available
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Initial boiling point and boiling range: no data available
Evaporation rate: no data available
Flammability (solid, gas): no data available
Upper explosion limit: no data available
Lower explosion limit: no data available
Vapour pressure: no data available
Relative vapour density: no data available
Relative density: no data available
Water solubility: soluble
Solubility in other solvents: no data available
Partition coefficient: n-octanol/water: no data available
Auto-ignition temperature: no data available
Thermal decomposition: no data available
Viscosity, kinematic: no data available
Explosive properties: no data available
Oxidizing properties: no data available

9.2 Other information
no data available

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid
None known.

10.5 Incompatible materials
Acids

10.6 Hazardous decomposition products
Decomposition products may include the following materials:
Carbon oxides
nitrogen oxides (NOx)
Sulphur oxides
Oxides of phosphorus
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**Section: 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

Information on likely routes of exposure

**Toxicity**

Acute oral toxicity : There is no data available for this product.

Acute inhalation toxicity : There is no data available for this product.

Acute dermal toxicity : There is no data available for this product.

Skin corrosion/irritation : No skin irritation

Serious eye damage/eye irritation : Eye irritation

Respiratory or skin sensitization : There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

**Components**

Acute oral toxicity:
- troclosene sodium
  - LD50 rat: 1,500 mg/kg
- adipic acid
  - LD50 rat: 5,560 mg/kg
- Sodium Carbonate(soda)
  - LD50 rat: 2,800 mg/kg

**Components**

Acute inhalation toxicity:
- adipic acid
  - 4 h LC50 rat: > 7.7 mg/l

**Components**

Acute dermal toxicity:
- troclosene sodium
  - LD50 rabbit: > 10,000 mg/kg
adipic acid
LD50 rabbit: > 7,940 mg/kg

Potential Health Effects

Eyes : Causes serious eye irritation.
Skin : Health injuries are not known or expected under normal use.
Ingestion : Harmful if swallowed.
Inhalation : May cause respiratory tract irritation. May cause nose, throat, and lung irritation.
Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Irritation
Skin contact : No symptoms known or expected.
Ingestion : No information available.
Inhalation : Respiratory irritation, Cough

Section: 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Environmental Effects : Very toxic to aquatic life with long lasting effects.

Product

Toxicity to fish : no data available
Toxicity to daphnia and other aquatic invertebrates : no data available
Toxicity to algae : no data available

Components

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate(soda) 48 h EC50 Daphnia: 200 mg/l

Components

Toxicity to algae : adipic acid 96 h EC50: 26.6 mg/l

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil
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12.5 Results of PBT and vPvB assessment

Product Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

European Waste Catalogue : 200129* - detergents containing dangerous substances

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number : 3077
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (troclosene sodium)
14.3 Transport hazard class(es) : 9
14.4 Packing group : III
14.5 Environmental hazards : Yes
14.6 Special precautions for user : None

Air transport (IATA)

14.1 UN number : 3077
14.2 UN proper shipping name : Environmentally hazardous substance, solid, n.o.s. (troclosene sodium)
14.3 Transport hazard : 9
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class(es)
14.4 Packing group : III
14.5 Environmental hazards : Yes

14.6 Special precautions for user

Sea transport (IMDG/IMO)
14.1 UN number : 3077
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(troclosene sodium)
14.3 Transport hazard class(es) : 9
14.4 Packing group : III
14.5 Environmental hazards : Yes
14.6 Special precautions for user : None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

Section: 15. REGULATORY INFORMATION

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

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

Other regulations : The Chemicals (Hazard Information and Packaging for Supply) Regulations.
The Control of Substances Hazardous to Health Regulations.
Health and Safety at Work Act.

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

Section: 16. OTHER INFORMATION

Full text of R-Phrases

R02 Risk of explosion by shock, friction, fire or other sources of ignition.
R08 Contact with combustible material may cause fire.
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R36 Irritating to eyes.
R36/37 Irritating to eyes and respiratory system.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335      May cause respiratory irritation.
H400      Very toxic to aquatic life.
H410      Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

ANNEX: EXPOSURE SCENARIOS

DPD+ Substances:

The following substances are the lead substances that contribute to the mixture Exposure Scenario according to the DPD+ Rule:

<table>
<thead>
<tr>
<th>Route</th>
<th>Substance</th>
<th>CAS-No.</th>
<th>EINECS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>trocloseen sodium</td>
<td>2893-78-9</td>
<td>220-767-7</td>
</tr>
<tr>
<td>Inhalation</td>
<td>trocloseen sodium</td>
<td>2893-78-9</td>
<td>220-767-7</td>
</tr>
<tr>
<td>Dermal</td>
<td>No lead substance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>trocloseen sodium</td>
<td>2893-78-9</td>
<td>220-767-7</td>
</tr>
<tr>
<td>aquatic</td>
<td>environment</td>
<td>trocloseen sodium</td>
<td>2893-78-9</td>
</tr>
</tbody>
</table>

To calculate if your downstream Operating Conditions and Risk management Measures are safe, please calculate your risk factor at the website below:

www.ecetoc.org/tra

Short title of Exposure Scenario : Surface disinfectant. Manual process

Use descriptors

Main User Groups : Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Sectors of end-use : SU22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories : PROC10: Roller application or brushing
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**PROC8a**: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

<table>
<thead>
<tr>
<th>Product categories</th>
<th>PC35: Washing and cleaning products (including solvent based products)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Release Categories</td>
<td>ERC8a: Wide dispersive indoor use of processing aids in open systems</td>
</tr>
</tbody>
</table>