Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 02/19/2016  Revision: 02/19/2016

1 Identification

· Product identifier
  · Trade name: Sterilex Ultra Step
  · Article number: 63761-10
· Recommended use and restriction on use
  · Recommended use: Sanitizer
  · Restrictions on use: No relevant information available.

· Details of the supplier of the Safety Data Sheet
  · Manufacturer/Supplier:
    Sterilex LLC
    111 Lake Front Drive
    Hunt Valley, MD 21030
    Phone: (443) 541-8800
  · Emergency telephone number:
    ChemTel Inc.
    + 1 (800)255-3924,  + 1 (813)248-0585

2 Hazard(s) identification

· Classification of the substance or mixture
  · Skin Irrit. 2  H315  Causes skin irritation.
  · Eye Dam. 1  H318  Causes serious eye damage.

· Label elements
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms:
  
  ![GHS05]

· Signal word: Danger

· Hazard-determining components of labeling:
  · tetraysodium ethylenediaminetetraacetate
  · Benzylidimethyltetradecylammonium chloride
· Hazard statements:
  · H315  Causes skin irritation.
  · H318  Causes serious eye damage.
· Precautionary statements:
  · P264  Wash thoroughly after handling.
  · P280  Wear protective gloves and eye 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.
  · P310  Immediately call a POISON CENTER/doctor.
  · P302+P352  IF ON SKIN: Wash with plenty of water.
  · P332+P313  If skin irritation occurs: Get medical advice/attention.

(Cont'd. on page 2)
Trade name: Sterilex Ultra Step

P362+P364 Take off contaminated clothing and wash it before reuse.

- **Classification system**
  - NFPA ratings (scale 0 - 4)
    - Health = 2
    - Fire = 0
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - HEALTH: Health = 2
    - FIRE: Fire = 0
    - REACTIVITY: Reactivity = 0

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

### 3 Composition/information on ingredients

#### Chemical characterization: Mixtures

- **Components:**

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15630-89-4</td>
<td>disodium carbonate, compound with hydrogenperoxide (2:3)</td>
<td>10-20%</td>
</tr>
<tr>
<td>497-19-8</td>
<td>sodium carbonate</td>
<td>5-10%</td>
</tr>
<tr>
<td>64-02-8</td>
<td>tetrasodium ethylenediaminetetraacetate</td>
<td>5-10%</td>
</tr>
<tr>
<td>139-08-2</td>
<td>Benzylidimethyltetradecylammonium chloride</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>25322-68-3</td>
<td>polyethylene glycol</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

- **Additional information:**
  For the listed ingredient(s), the identity and exact percentage(s) are being withheld as a trade secret.
  For the wording of the listed Hazard Statements refer to section 16.

### 4 First-aid measures

- **Description of first aid measures**
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:**
    - Brush off loose particles from skin.
    - Immediately remove any clothing soiled by the product.
    - Immediately wash with water and soap and rinse thoroughly.
    - If skin irritation continues, consult a doctor.
Trade name: Sterilex Ultra Step

- **After eye contact:**
  Protect unharmed eye.
  Remove contact lenses if worn.
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
  Rinse out mouth and then drink plenty of water.
  Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
  Breathing difficulty
  Coughing
  Cramp
  Irritant to skin and mucous membranes.
  Gastric or intestinal disorders when ingested.
  Nausea in case of ingestion.
- **Danger:** Causes serious eye damage.
- **Indication of any immediate medical attention and special treatment needed:**
  If necessary oxygen respiration treatment.

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5 Fire-fighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
  - **For safety reasons unsuitable extinguishing agents:** None.
  - **Special hazards arising from the substance or mixture**
  Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
  - **Protective equipment:**
    Wear self-contained respiratory protective device.
    Wear fully protective suit.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
  Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.
  Ensure adequate ventilation.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
  **Methods and material for containment and cleaning up:**
  Pick up mechanically.
  Send for recovery or disposal in suitable receptacles.
  Clean the affected area carefully; suitable cleaners are:
  Warm water
- **Reference to other sections:**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.

(Cont'd. of page 2)
Trade name: Sterilex Ultra Step

See Section 13 for disposal information.

7 Handling and storage

- Handling
  - Precautions for safe handling:
    Prevent formation of dust.
    Any deposit of dust which cannot be avoided must be regularly removed.
    Keep away from heat and direct sunlight.
  - Information about protection against explosions and fires: Protect from heat.

- Conditions for safe storage, including any incompatibilities

- Storage
  - Requirements to be met by storerooms and receptacles:
    Store in a cool location.
    Protect from humidity and water.
    Provide ventilation for receptacles.
  - Information about storage in one common storage facility:
    Store away from foodstuffs.
    Store away from flammable substances.
    Avoid direct contact with strong acids.
  - Further information about storage conditions:
    Keep containers tightly sealed.
    This product is hygroscopic.

- Specific end use(s): No relevant information available.

8 Exposure controls/personal protection

- Control parameters
  - Components with limit values that require monitoring at the workplace:
    25322-68-3 polyethylene glycol
    WEEL (USA) Long-term value: 10 mg/m³ (H); MW>200

- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      The usual precautionary measures for handling chemicals should be followed.
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
      Do not inhale dust / smoke / mist.
      Avoid contact with the eyes and skin.
    - Engineering controls: No relevant information available.
    - Breathing equipment:
      Not required under normal conditions of use.
Trade name: Sterilex Ultra Step

For spills, respiratory protection may be advisable. Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

- Protection of hands:
  
  Protective gloves

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

- Eye protection:

  Safety glasses

- Body protection: Protective work clothing

- Limitation and supervision of exposure into the environment

  No relevant information available.

9 Physical and chemical properties

- Information on basic physical and chemical properties

  - Appearance:

    Form: Powder
    Color: Light blue
    Odor: Odorless
    Odor threshold: Not determined.

  - pH-value at 20 °C (68 °F): 8.7 - 9.7 (1% aqueous solution)
  - Melting point/Melting range: Not determined.
  - Boiling point/Boiling range: Not determined.

  - Flash point: Not applicable.

  - Flammability (solid, gaseous): Not determined.

  - Auto-ignition temperature: Not determined.

  - Decomposition temperature: Not determined.

  - Auto igniting: Product is not self-igniting.

  - Danger of explosion: Product does not present an explosion hazard.

  - Explosion limits

    Lower: Not determined.
    Upper: Not determined.

  - Oxidizing properties: Not determined.

  - Vapor pressure: Not determined.

  - Density: Not determined.

  - Relative density: Not determined.
Trade name: Sterilex Ultra Step

- Vapor density: Not applicable.
- Evaporation rate: Not applicable.
- Solubility in / Miscibility with Water: Soluble.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
- Other information No relevant information available.

10 Stability and reactivity

- Reactivity: No relevant information available.
- Chemical stability: Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:
  No decomposition if used and stored according to specifications.
  To avoid thermal decomposition, do not overheat.
- Possibility of hazardous reactions:
  Toxic fumes may be released if heated above the decomposition point.
  Exothermic reaction with acids.
  Reacts with flammable substances.
- Conditions to avoid:
  Moisture.
  Keep away from heat and direct sunlight.
  Avoid direct contact with acids.
- Incompatible materials: Take any precaution to avoid mixing with combustibles.
- Hazardous decomposition products:
  Carbon monoxide and carbon dioxide
  Oxygen
  Nitrogen oxides (NOx)
  Chlorine compounds

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      Oral LD50 > 2000 mg/kg (rat)
      Dermal LD50 > 5000 mg/kg (rabbit)
    - 15630-89-4 disodium carbonate, compound with hydrogenperoxide (2:3)
      Oral LD50 800 - 1000 mg/kg (rat)
      Dermal LD50 > 2000 mg/kg (rabbit)
**Trade name:** Sterilex Ultra Step

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| 64-02-8 tetrasodium ethylenediaminetetraacetate |  
|-----------------|----------------|
| Oral LD50 | 1700 mg/kg (rat) |

- **Primary irritant effect:**
  - **On the skin:** Irritant to skin and mucous membranes.
  - **On the eye:** Strong irritant with the danger of severe eye injury.

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- **IARC (International Agency for Research on Cancer):**
  - None of the ingredients are listed.

- **NTP (National Toxicology Program):**
  - None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**
  - None of the ingredients are listed.

- **Probable route(s) of exposure:**
  - Ingestion.
  - Inhalation.
  - Eye contact.
  - Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**
  - Causes serious eye damage.
  - Irritating to skin.

- **Repeated dose toxicity:** No relevant information available.

- **CMR effects (carcinogenity, 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.

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**12 Ecological information**

- **Toxicity**
  - **Aquatic toxicity** The material is harmful to the environment.
  - **Persistence and degradability** No relevant information available.
  - **Bioaccumulative potential:** No relevant information available.
  - **Mobility in soil:** No relevant information available.

- **Additional ecological information**

- **General notes:**
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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

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(Cont'd. on page 8)
### Trade name: Sterilex Ultra Step

**Other adverse effects:** No relevant information available.

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### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:** Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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### 14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, ADR, IMDG, IATA</th>
<th>Not regulated.</th>
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<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>Not regulated.</td>
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<tr>
<td>Transport hazard class(es)</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>Not regulated.</td>
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<tr>
<td>Class</td>
<td></td>
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<tr>
<td>Packing group</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>Not regulated.</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td></td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

(Cont'd. on page 9)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - United States (USA)
  - SARA
    - Section 355 (extremely hazardous substances):
      None of the ingredients are listed.
    - Section 313 (Specific toxic chemical listings):
      None of the ingredients are listed.
  - TSCA (Toxic Substances Control Act)
    All ingredients are listed.
- Proposition 65 (California)
- Chemicals known to cause cancer:
  None of the ingredients are listed.
- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients are listed.
- Chemicals known to cause reproductive toxicity for males:
  None of the ingredients are listed.
- Chemicals known to cause developmental toxicity:
  None of the ingredients are listed.
- Carcinogenic categories
  - EPA (Environmental Protection Agency):
    139-08-2 Benzylidimethyltetradecylammonium chloride
  - Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
    EPA Product Registration #: 63761-10
    This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:
    DANGER. Corrosive. Causes irreversible eye damage and skin irritation. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear (goggles, face shield, or safety glasses), coveralls worn over short-sleeved shirt and short pants, socks, chemical-resistant footwear and waterproof gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.
  - IARC (International Agency for Research on Cancer):
    None of the ingredients are listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health):
    None of the ingredients are listed.
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 02/19/2016  Revision: 02/19/2016

Trade name:

(Cont’d. of page 9)

- Canada
- Canadian substance listings

<table>
<thead>
<tr>
<th>Canadian Domestic Substances List (DSL):</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ingredients are listed.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Canadian Ingredient Disclosure list (limit 0.1%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients are listed.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Canadian Ingredient Disclosure list (limit 1%):</th>
</tr>
</thead>
<tbody>
<tr>
<td>497-19-8</td>
</tr>
</tbody>
</table>

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

- Date of preparation / last revision 02/19/2016 / -

- Abbreviations and acronyms:
  ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  Ox. Sol. 2: Oxidising Solids, Hazard Category 2
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  Skin Irit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Sources
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Safety Data Sheets, Individual Manufacturers

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