SAFETY DATA SHEET

1. Identification of the Substance and Company

Process NPD

Hard Surface Antimicrobial

Product No. 6390

MSDS No. 6390

Prepared by: M. Ebers

Date Created: December 1, 2001

steris_mdsd@steris.com

STERIS Corporation, P. O. Box 147, St. Louis, MO 63166, US

2. Hazards Identification:

Corrosive to eyes and skin. Harmful in contact with skin or if swallowed.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>% By Wt.</th>
<th>CAS No.</th>
<th>EU No.</th>
<th>Symbol</th>
<th>R Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N-Diethyl (G8-10)</td>
<td>9.20</td>
<td>68424-95-3</td>
<td>270-335-1</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>N,N-dimethylammonium chloride (See label for specific breakdown)</td>
<td>6.14</td>
<td>68424-85-1</td>
<td>270-325-2</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Allyl (50% C14, 40% C12, 10% C16) dimethyl benzyl ammonium chloride</td>
<td>&lt;3</td>
<td>64-17-5</td>
<td>200-578-6</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Eye Contact: Flush eyes immediately with water for at least 15 minutes. Get medical attention.

Skin Contact: Flush skin immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation: Remove patient to fresh air. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting. Get medical attention. Do not give anything by mouth to an unconscious person. If conscious, drink large quantity of milk or water.

5. Fire-Fighting Measures

Flash Point: None to boiling. Special Hazards: None known.

Extinguishing Media: Suitable for surrounding fire - water, foam, dry chemical, CO₂.

Special Fire Fighting Procedures: None known.

6. Accidental Release Measures: Spills may be picked up with a mop and followed by a water rinse. Small spills may be flushed to a sanitary sewer with copious amounts of water.

7. Handling and Storage

7.1 Handling: This product will withstand an occasional accidental freezing without loss in normal performance characteristics. It must be thoroughly thawed and agitated (roll drum) before being used.

7.2 Storage: Store closed container in a cool area away from heat and flame.

8. Exposure Control/Personal Protection

8.1 Occupational Exposure Limits

Monoethanolamine: ACGIH TLV and OSHA PEL= 3ppm; MAK = 5 mg/m³

Ethanol: ACGIH TLV and OSHA PEL= 1000ppm; UK HSE EH40 LTEL = 1000ppm (TWA)

8.2 Personal Protection

Respirator Protection: Not normally required. Required if established exposure limits (See Sec. 8.1) are exceeded.

Eye Protection: Safety glasses or goggles.

9. Physical and Chemical Properties

Solubility in Water: Complete

Specific Gravity: ~ 1.02

Appearance/Odor: Clear light yellow liquid/Characteristic

10. Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur.

Incompatible Materials: None known.

Conditions to Avoid: None known.

Hazardous Decomposition or Byproducts: Forced ignition of dried residues may produce CO, CO₂, nitrogen oxides.

11. Toxicological Information

11.1 Acute (Primary Routes of Exposure)

Eyes: Concentrate is corrosive to tissues. Use dilution may cause significant irritation

Skin: Concentrate is corrosive to tissues. Use dilution may cause slight irritation. Dermal LD₅₀ (rabbits) is 830mg/kg.

Inhalation: Rats exposed to 63.7mg/liter of a 1:256 dilution for six hours showed no toxic effects. Finely divided spray mists of use-dilution irritating to mucous membranes.

Ingestion: Oral LD₅₀ (rats) 1420mg/kg. Concentrate corrosive to mouth and throat.

11.2 Long Term Exposure: None known.

Carcinogenicity: IARC, NTP and OSHA do not list this product or its ingredients as carcinogens.

12. Ecological Information: None known.

13. Disposal Considerations

Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with state, local and federal regulations. For additional guidance, contact the State Water Board or the Regional Office of the EPA.

14. Transport Information

Ground: Disinfectant, Liquid, Corrosive N.O.S. (Quaternary Ammonium Compounds) 8, UN1903, PG III

Road/Rail: ADR/RID Class: UN1903, Disinfectant, Liquid, Corrosive N.O.S. (Quaternary Ammonium Compounds), 8, PG III

Sea: IMDG Class: Disinfectant, Liquid, Corrosive N.O.S. (Quaternary Ammonium Compounds), 8, Corrosive, UN 1903, PG III

Air: ICAO/IATA Class: Disinfectant, Liquid, Corrosive N.O.S. (Quaternary Ammonium Compounds), 8, Corrosive, UN 1903, PG III

15. Regulatory Information

USA State Regulations: May contain trace levels of acetaldehyde, n-nitrosodimethylamine, propylene oxide, benzene, benzyl chloride, ethylene oxide.

EPA Registration number: 1043-90

16. Other Information: The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.

NA - Not Applicable
ND - No Data

Protective Gloves: Rubber.

Other Protective Clothing and Equipment: Clothes sufficient to avoid contact.

Ventilation: Adequate ventilation to maintain air concentrations below established limits.

Special Fire Fighting Procedures:

Suitable for surrounding fire - water, foam, dry chemical, CO₂.

Extinguishing Media:

Adequate ventilation to maintain air concentrations below established limits.

Conditions to Avoid:

None known.

Hazardous Polymerization:

Will not occur.

Incompatible Materials:

None known.

Conditions to Avoid:

None known.

Hazardous Decomposition or Byproducts:

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