Material Safety Data Sheet

Product: NOVACIDE

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Manufacturer: BioShields - A Division of Tulip Diagnostics Pvt. Ltd.
Plot No. M – 46, Phase III B, Verna Industrial Estate, Verna, Goa, 403 722, INDIA.

Product name: NOVACIDE
Synonyms: Aldehyde Free High Level Disinfectant For Medical Devices

2. COMPOSITION/INFORMATION ON INGREDIENTS

The ingredients at their given percentages in this product are not considered hazardous to your health.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly (hexamethylene biguanide) hydrochloride</td>
<td>32289 – 58 – 0</td>
<td>(2.0 – 3.0) %</td>
</tr>
<tr>
<td>Didecyl Dimethyl Ammonium Chloride</td>
<td>7173 – 51 – 5</td>
<td>(8.5 – 11.5) %</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Principle routes of exposure:
- Oral: Can irritate the tissues of mouth, oesophagus, and other tissues of the digestive system. Symptoms of over exposure can include vomiting, diarrhea and nausea.
- Eye contact: Severe irritant to the eyes.
- Skin contact: May cause skin irritation in sensitized individuals.
- Ingestion: Ingestion of this material may cause nausea, vomiting and diarrhea.
- Inhalation: Inhalation of mist or vapors may be severely irritating to the nose and throat.

Physico – chemical properties: This product may cause eye, skin or respiratory irritation.

4. FIRST AID MEASURES

Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical attention.
Ingestion: Wash mouth and throat immediately with plenty of water and seek medical attention.
Inhalation: Move to fresh air immediately. If experiencing difficulty breathing, seek medical attention.
Skin contact: Rinse with water. Remove contaminated clothing and wash before re – use. Consult a physician if skin redness or irritation persists.

5. FIRE – FIGHTING MEASURES

Flash point (°C): Not determined.
Autoignition temperature: Not determined.
Flammable limits in air - lower (%): Not determined.
Fire fighting information:
- Suitable extinguishing media: Use water, dry chemical, carbon dioxide or chemical foam.
- Extinguishing media which must not be used for safety reasons: None.

This Document is the property of Tulip Diagnostics (P) Ltd., Goa.
It must be handled as classified and not derived or recreated in whole or in part in any way without permission of the company.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation of mist or vapours. Wear eye protection if necessary.
Environmental precautions : No special environmental precautions required.
Methods for cleaning up : Flush with plenty of water.

7. HANDLING AND STORAGE

Handling :
  Technical measures/precautions : No special technical protective measures required.
  Safe handling advice : Use only in well-ventilated areas. Avoid breathing vapors or mist.
                        Avoid contact with skin and eyes. Eye and skin protection recommended. Wear chemical resistant gloves.

Storage :
  Technical measures/storage conditions : Store at R. T. away from heat and light.
  Incompatible products : Avoid contact with strong acids and bases.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye protection : Safety glasses required.
Hand protection : Wear latex gloves while handling.
Skin and body protection : Not required.
Respiratory protection : Not required.
Other/general protection : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear Liquid.
Physical State : Liquid.
Colour : Colourless to pale yellow.
pH : 5.5 – 6.5
Odour : Pleasant.
Water Miscibility : Miscible (Clear solution).

10. STABILITY AND REACTIVITY

Chemical stability : Stable under recommended storage conditions.
Hazard polymerization : Hazardous polymerization does not occur.
Hazardous decomposition products : Unknown on product.
Materials to avoid : Strong acids and bases.
Conditions to avoid : Direct exposure to heat and sunlight.

11. TOXICOLOGICAL INFORMATION

Local effects
  Oral : Unknown on product.
  Eye irritation : Severe irritant to the eye.
  Skin irritation : May cause skin irritation in sensitized individuals.
  Inhalation : Inhalation of mist or vapours may cause irritation to the nose and throat.
Chronic toxicity
  Oral : Not determined.
  Inhalation : Not determined.
  Dermal : Not determined.

Specific effects
  Corrosive effects : Not determined.
  Target organ effects : Not determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity
  Ecotoxicity effects : This product has no known eco – toxicological effects.
  Aquatic toxicity effects : This product has no known aquatic toxicological effects.
  Mobility : Unknown on product.
  Persistence / degradability : Unknown on product.
  Bioaccumulation : Unknown on product.
  Degradation : Unknown on product.

13. DISPOSAL CONSIDERATIONS

This product may be disposed off in accordance with the regulations laid down by the local regulatory authority.

14. TRANSPORT INFORMATION

DOT : None
IATA/ICAO : None

15. REGULATORY INFORMATION

CAS No. : Not applicable.
Labeling : For External Use Only.
Safety Phrases : Avoid contact with the mucous membrane. In case of contact, wash immediately with plenty of water and seek medical attention.

16. OTHER INFORMATION

Additional advice : None
Literary Reference : None

Disclaimer :
The information and recommendations contained herein are based upon tests believed to be reliable. However, BioShields, A Division of Tulip Diagnostics (P) Ltd. does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage maybe required. BioShields, A Division of Tulip Diagnostics (P) Ltd. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

End of Safety Data Sheet