Section 1. Identification of the substance/mixture and of the company/undertaking

1.1 **Product name:** TD-8® Disinfectant.
   **Synonyms:** None.
   **Composition:** an aqueous 0.59% (w/v) ortho-phthalaldehyde (OPA) solution.
   **Product code:** CS-TD-8

1.2 **Relevant identified uses:** High level disinfectant for use in TD 100® disinfector.

1.3 **Supplier:**
   CS Medical, LLC
   2179 East Lyon Station Road
   Creedmoor, North Carolina 27522
   United States of America

   Company service telephone: +1-(877) 255-9472
   CS Medical email contact: info@csmedicalllc.com

1.4 **Emergency Telephone Number:** CHEMTREC Emergency telephone number: in USA (800-424-9300, outside USA +1-(703) 527-3887

Section 2. Hazards identification

2.1 **Classification:**

   **GHS Classification**
   - Skin Irritation: 2
   - Eye Irritation: 2
   - Signal Word: Warning

   **NFPA Rating**
   - Health: 1
   - Flammability: 0
   - Reactivity: 0

2.2 **GHS Label Elements:**

   **Code**
   **Hazard Statements**
   H315: Causes skin irritation
   H319: Causes serious eye irritation

   **Code**
   **Precautionary Statements**
   P264: Wash skin thoroughly after handling.
   P302+P352: IF ON SKIN, wash with plenty of soap and water.
   P305+P351+ P338: IF IN EYES rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing.

   **Code**
   **Prevention**
   P280: Wear protective gloves/ protective clothing/ eye protection/ face protection

   **Code**
   **Response**
   P332+P313: IF SKIN irritation occurs: get medical attention/advice.
   P362: Take of contaminated clothing and wash before reuse
Section 3. Composition/Information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight %</th>
<th>CAS Number</th>
<th>CS Medical</th>
<th>NTP:</th>
<th>IARC:</th>
<th>California Prop. 65 limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ortho-phthalaldehyde (OPA or 1,2-benzenedicarboxaldehyde)</td>
<td>0.59%</td>
<td>643-79-8</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Section 4. First aid measures

4.1 Description of first aid measures:

4.1.1 General information: Remove contaminated, saturated clothing immediately. In the case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.1.3 Following skin contact: Wash immediately with soap and water. In case of skin irritation, consult a physician.

4.1.4 Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult and ophthalmologist immediately.

4.1.5 Following ingestion: Do not induce vomiting. Rinse mouth followed by drinking a large quantity of water. Do not induce vomiting. Seek medical attention.

4.1.6 Self-protection of the first aider: First aider: pay attention to self-protection.

4.2 Most important symptoms: Development of grey skin lesions upon spill contact with skin.

4.3 Indications of immediate medical attention: Provide first aid, decontaminate area. Seek medical attention if eye contact or ingestion occurs. See a physician if skin contact results in irritation. Notes to physician: Probable damage to the mucosa from oral exposure may contraindicate the use of gastric lavage.

Section 5. Firefighting measures

Flash point: Not applicable
Autoignition temperature: Not applicable
Flammable limits: Not applicable
Explosion: Not normally an explosion hazard

5.1 Extinguishing media: Any means suitable for surrounding fire.
5.2 Special hazards arising from the substance or mixture: Hazardous combustion products: None
5.3 Advice for fire-fighters: Special protection equipment: Wear a contained breathing apparatus and chemical protective clothing.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: User personal protective equipment, see Section 8.
6.1.2 For emergency responders: Remove persons to safety. Isolate hazard area and deny entry. Ventilate closed spaces before entering. Use personal protective equipment. see Section 8.
6.2 Environmental precautions: Prevent further leakage or spillage if safe to do so. Avoid washing down sewers or waterways. Discharge into the environment must be limited.
6.3 Methods and materials for containment and cleanup:

6.3.1 For containment: Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal. Large spills may be neutralized with sodium bisulfite (~100 gr/liter), glycine (~10 gr/liter), or Glycinex® Neutralizer (~10 gr/liter). Allow 5 minutes contact for neutralization, then transfer to a properly labeled container. Disposed of according to local regulations. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment should be avoided.

6.3.2 For cleanup: Clean contaminated surfaces thoroughly.
6.4 Reference to other sections: Personal protection equipment: See Section 8.
Section 7 Handling and storage

7.1 Precautions for safe handling: Put on personal protective equipment. This includes nitrile gloves, chemically resistant gown or apron, and chemical goggles. Wear protective attire for the entire procedure. Handle containers with care. Remove the lid of the unopened bottle of TD-8® Disinfectant is while leaving the foil seal intact. Make sure the foil is intact, then invert the bottle and place in the loading position of the TD-100® Disinfector. You will feel resistance as the piercer penetrates the foil seal. Push the bottle down to complete the piercing. The disinfectant will drain into the cleaning reservoir. Retain the cap for use after the run is complete.

7.2 Conditions for safe storage, including incompatibilities: This product should be stored at controlled room temperature between 59°F (15°C) and 86°F (30°C). Keep containers tightly closed. This product can be stored with other chemicals, is not flammable, and no special fire protection measures are necessary.

7.3 Specific end uses: TD-8® disinfectant is for exclusive use in the TD-100® Disinfector in accordance with operating instructions. Do not use content for any other reason. Do not use with any other disinfector device, either manual or automated.

Section 8. Exposure control/personal protection

Control Parameters: TD-8® Disinfectant contains no chemical substances with occupational exposure limit values.
Skin protection: Chemical resistant gloves are recommended. Use nitrile, not latex, gloves.
Eye Protection: Laboratory safety goggles, safety glasses or face shield are required.
Ingestion: Do not ingest, drink, or use in the presence of food.
Environmental exposure controls: In the case of a spill decontaminate as described in Section 6 of this SDS. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment should be avoided.

Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Liquid</th>
<th>Freezing point/range:</th>
<th>0°C (32 °F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color/appearance:</td>
<td>Light blue/clear</td>
<td>pH:</td>
<td>7 - 8</td>
</tr>
<tr>
<td>Boiling temperature:</td>
<td>100°C (212°F)</td>
<td>Specific gravity:</td>
<td>1.00 g/cc</td>
</tr>
<tr>
<td>Odor:</td>
<td>Slight Odor</td>
<td>Evaporation rate:</td>
<td>Similar to water</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

Chemical stability: Stable under recommended storage conditions.
Hazardous polymerization: Hazardous polymerization not known to occur.
Hazardous decomposition products: Hazardous decomposition not known to occur.

Section 11. Toxicological information

Acute toxicity
LD50/oral/rat (mg/kg): >5000 mg/kg
LD50 Dermal Rabbit (mg/kg): >2000 mg/kg

Local effects
Oral: Non-toxic
Eye irritation: May cause eye irritation
Skin irritation: May cause skin irritation
Inhalation: Unknown on product.

Chronic toxicity
Oral: Unknown for product
Reproductive: Unknown for product
Dermal: Unknown for product
Inhalation: Unknown for product

Subchronic toxicity: No observed effect limit of 5 mg/kg/day observed in rats administered pure OPA once per day for 90 days.
Developmental effects: Oral administration of OPA to pregnant rats indicated that at maternally non-toxic doses (less than 10 mg/kg/day) there was no developmental effect.

Allergic reactions: Antidotal evidence in human case studies

Target organ effects: None

Corrosive effects: None

Ames test: Negative

Carcinogenicity: Ingredients in TD-8® Disinfectant are not known or suspected carcinogens

Section 12. Ecological information

12.1 Toxicity:

Code Statement:
H412: Hazard Statement: May cause long-term adverse effects in the aquatic environment
P273: Precautionary statement prevention: Avoid release to the environment
P501: Precautionary statement disposal: Dispose of container and waste effluent according to local, state, federal, and Union regulations.

LC50 of OPA for freshwater fish: 0.07 mg/liter
EC50 of OPA for freshwater Crustaceans: 0.09 mg/liter

12.2 Persistence and degradability: Not established

12.3 Bioaccumulative potential: Not established

12.4 Mobility in soil: No information available

Section 13. Disposal considerations


13.1.1 Waste-treatment-relevant information: Dispose of container and waste effluent according to local, state, federal, and Union regulations.

13.1.2 Sewage disposal-relevant information: Neutralize aldehyde in effluent with Glycine (~10 gr/liter).

Section 14. Transportation information- Not regulated

Section 15 Regulatory information

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

15.1.1 EU Regulations: No REACH Annex XVII restrictions. Contains no REACH candidate substance.

15.1.2 National regulations: No additional information available

15.2 Chemical safety assessment: No chemical safety assessment has been carried out.

Section 16. Other information

This Safety Data Sheet was formatted for compliance with (EC) 1907/2006. Classifications and procedures used to derive the hazards categories for mixtures is according to Regulation (EC) 1272/2008 (CLP).

This SDS information is believed to be correct but is not warranted as such, nor does it purport to be all-inclusive. Prepared by T.F. Last revised on June 2, 2015.

End of Safety Data Sheet