Section 1 – Product Information

Product Name: Ruhof Biocide
Product Code: 34566
Product Use: Detergent Disinfectant
Supplier: The Ruhof Corporation
Information Phone: 1-800-537-8463
Emergency Contact: 1-800-424-9300 (Chemtrec)
Address: 393 Sagamore Avenue Mineola NY 11501

Section 2 – Hazards Identification

GHS Classification Skin Corrosion/Irritation Category 1B

Section 2.1 Label Elements

<table>
<thead>
<tr>
<th>Hazard Pictograms</th>
<th>Precautionary Statements</th>
</tr>
</thead>
</table>
| !               | Hazard Statements:  
|                 | H302 – Harmful if swallowed |
|                 | Precautionary Statements:  
|                 | P501 - Dispose of contents/container to an approved waste disposal plant |

Signal Word: Warning

Section 3 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Alkyl(60%C14, 30%C16, 5%C12, 5%C18) dimethyl benzyl ammonium chlorides</td>
<td>68391-01-5</td>
<td>0,1-&lt;1</td>
</tr>
<tr>
<td>N-Alkyl (68%C12, 32%C14) dimethyl ethyl benzyl ammonium chlorides</td>
<td>68956-79-6</td>
<td>0,1-&lt;1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General Advice: No specific measures required.
Eye Contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Skin Contact: Rinse off with water. If symptoms persist, consult a doctor.
Inhalation: If irritation occurs move to fresh air. If symptoms persist, call a doctor.
Ingestion: Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific Hazards Arising from the Chemical: None in particular.
Explosion Data: 
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.
Special protective equipment for fire-fighters: No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: 
Use personal protective equipment.
Methods and materials for containment and cleanup: 
Soak up with inert absorbent material.
Reference to other sections: See Section 12 for additional information.

7. HANDLING AND STORAGE

Handling: No special precautions are necessary if used correctly.
Hygiene Measures: When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.
Conditions for safe storage, including any incompatibilities: Keep out of the reach of children. Keep in properly labeled containers.
Specific end use(s) Exposure Scenario: No information available. Other Guidelines: No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls: 
Engineering Measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands after use.

Recommended personal protective measures:
Personal protective equipment should be worn in accordance with OSHA bloodborne pathogen guidelines when handling soiled instruments.
Eye/Face Protection: Wear safety goggles or face shield if spraying can meet face.
Skin and Body Protection: Light weight protective clothing. Impervious gloves.
Respiratory Protection: If irritation is experienced, NIOSH/MSHA approved respiratory protection can be worn.
Hygiene Measures: When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Odor</th>
<th>Appearance</th>
<th>pH</th>
<th>Melting Point/Range</th>
<th>Boiling Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Mild</td>
<td>Light Yellow</td>
<td>11-12</td>
<td>No data available</td>
<td>&gt;100°C</td>
</tr>
</tbody>
</table>

Flash Point: Flammability Limits
- No data available

Vapor Pressure: Specific Gravity
- No data available
- 1.01 - 1.03

Water Solubility: Flammable Properties
- Soluble
- Not Flammable

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under recommended storage conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Hazardous polymerization does not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>None known based on information supplied.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>None known based on information supplied.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>None known based on information supplied</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Inhalation
- Based on available data, the classification criteria are not met.

Eye Contact
- May cause irritation.

Skin Contact
- May cause irritation and/or may cause burns.

Ingestion
- There is no data available for this product.

Carcinogenicity
- Based on available data, the classification criteria are not met.

Chronic Toxicity
- Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Benzalkyl quaternary ammonium surfactants (68391-01-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes</td>
<td>0.28 mg/l (Exposure time: 96h – Species: Pimephales promelas)</td>
</tr>
<tr>
<td>EC50 Daphnia</td>
<td>0.037 mg/l (Exposure time: 48h – Species: Daphnia magna)</td>
</tr>
</tbody>
</table>

Persistence and Degradability
- No information available.

Bioaccumulation
- The product does not contain any substances expected to be bioaccumulating.

Other Adverse Effects
- No information available.

13. DISPOSAL CONSIDERATIONS

<table>
<thead>
<tr>
<th>Waste Disposal Methods</th>
<th>Dispose of in accordance with federal, state, and local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contaminated Packaging</td>
<td>Do not re-use empty containers.</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
- The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>US Federal Regulations</td>
<td>29 CFR 1910.1200(g)</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Full text of H-phrases referred to under Sections 2: H302 Harmful if swallowed

Prepared By
The Ruhof Corporation
393 Sagamore Avenue
Mineola, NY 11501

Document Control No. SDS-34566
Revision Date 16-September-2019
Revision Note Rev_03

General Disclaimer
The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet