SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form: Mixture
Product name: Process QDS® Process Disinfectant/Sanitizer
Product code: 1J75

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Process Disinfectant/Sanitizer. For professional use only.

1.3. Details of the supplier of the safety data sheet
STERIS Corporation
Official Mailing Address:
P.O. Box 147
St. Louis, MO 63166 USA

Street Address:
7501 Page Avenue
St. Louis, MO 63133 USA

Telephone Number for Information: 1-800-548-4873 (Customer Service - Healthcare Products)
web: www.steris.com
email: asksteris_msd@steris.com

1.4. Emergency telephone number
Emergency number: 1-314-535-1395 or CHEMTREC: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (GHS-US)
Skin Corr. 1B H314
Eye Dam. 1 H318

2.2. Label elements – This label is regulated by the EPA under FIFRA. Refer to Section 15.
GHS-US labeling
Hazard pictograms (GHS-US):

GHS05  GHS09

Signal word (GHS-US): Danger
Hazard statements (GHS-US):
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.

Precautionary statements (GHS-US):
P260 - Do not breathe mist, spray, vapors.
P280 - Wear protective gloves, protective clothing, eye protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other hazards
Other Hazards: May be corrosive to respiratory tract.
**SECTION 3: Composition/information on ingredients**

### 3.1. Substance

Not applicable.

### 3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides</td>
<td>(CAS No) 68424-95-3</td>
<td>1 - 5</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>(CAS No) 68424-85-1</td>
<td>1 - 5</td>
<td>Flam. Liq. 3, H226</td>
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<tr>
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<td>Acute Tox. 4 (Oral), H302</td>
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<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>(CAS No) 64-17-5</td>
<td>1 - 5</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>

**SECTION 4: First aid measures**

### 4.1. Description of first aid measures

**First-aid measures general**: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

**First-aid measures after inhalation**: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

**First-aid measures after skin contact**: Remove contaminated clothing. Drench affected area with water for at least 60 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

**First-aid measures after eye contact**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

**First-aid measures after ingestion**: Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/injuries**: Causes skin burns and eye damage. May cause respiratory irritation.

**Symptoms/injuries after inhalation**: May cause respiratory irritation.

**Symptoms/injuries after skin contact**: Causes severe skin burns.

**Symptoms/injuries after eye contact**: Causes serious eye damage. May burn the cornea causing temporary or permanent damage or blindness.

**Symptoms/injuries after ingestion**: Ingestion is likely to be harmful or have adverse effects. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**Chronic symptoms**: None expected under normal conditions of use.

**SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

**Suitable extinguishing media**: Use extinguishing media appropriate for surrounding fire.

**Unsuitable extinguishing media**: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special hazards arising from the substance or mixture

**Fire hazard**: Not flammable.

**Explosion hazard**: Product is not explosive.

**Reactivity**: Hazardous reactions will not occur under normal conditions.
5.3. **Advice for firefighters**

Precautionary measures fire : Exercise caution when fighting any chemical fire.

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water sources. Do not breathe fumes from fires or vapors from decomposition.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

**SECTION 6: Accidental release measures**

6.1. **Personal precautions, protective equipment and emergency procedures**

General measures : Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

6.1.1. **For non-emergency personnel**

Protective equipment : Use appropriate personal protection equipment (PPE).

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. **For emergency responders**

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Evacuate unnecessary personnel. Ventilate area. Stop leak if safe to do so.

6.2. **Environmental precautions**

Prevent entry to sewers and public waters.

6.3. **Methods and material for containment and cleaning up**

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill.

6.4. **Reference to other sections**

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

**SECTION 7: Handling and storage**

7.1. **Precautions for safe handling**

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapor and mist. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. **Conditions for safe storage, including any incompatibilities**

Storage conditions : Store in a dry, cool, and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store away from incompatible materials. Store locked up.

Incompatible products : Strong acids, strong bases, strong oxidizers.

**Pesticide Storage**

Pesticide Storage : Store in original container in areas inaccessible to children. Do not reuse empty container. Discard in trash or recycle.

7.3. **Specific end use(s)**

Process Disinfectant/Sanitizer. For professional use only.

**SECTION 8: Exposure controls/personal protection**

8.1. **Control parameters**

<table>
<thead>
<tr>
<th>Substance</th>
<th>USA ACGIH</th>
<th>USA OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>ACGIH STEL (ppm)</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>1000 ppm</td>
<td>1900 mg/m³</td>
</tr>
</tbody>
</table>

8.2. **Exposure controls**

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapors below permissible exposure limit. Ensure all national/local regulations are observed.

Materials for protective clothing: Chemically resistant materials and fabrics.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Wear chemical safety goggles.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Consumer exposure controls: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Clear, colorless liquid

Color: Colorless, clear

Odor: There may be no odor warning properties; odorless

Odor threshold: No data available

pH: 6.1 - 8.8

Relative evaporation rate (butyl acetate=1): No data available

Melting point: No data available

Freezing point: No data available

Boiling point: No data available

Flash point: Not flammable

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): No data available

Vapor pressure: No data available

Relative vapor density at 20 °C: No data available

Specific gravity: 0.992 g/mL (water = 1)

Solubility: Complete in water

Log Pow: No data available

Log Kow: No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Explosive limits: Not applicable.

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see Section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.
10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures. Incompatible materials.

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizers.

10.6. Hazardous decomposition products
Nitrogen compounds. Chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1)
LD50 oral rat 426 mg/kg

Ethyl alcohol (64-17-5)
LD50 oral rat 10470 mg/kg
LD50 dermal rat 20 ml/kg
LC50 inhalation rat (mg/l) 124.7 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.
                      pH: 6.1 - 8.8

Serious eye damage/irritation : Causes serious eye damage.
                       pH: 6.1 - 8.8

Respiratory or skin sensitization : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.
Reproductive toxicity : Not classified.
Specific target organ toxicity (single exposure) : Not classified.
Specific target organ toxicity (repeated exposure) : Not classified.

Aspiration hazard : Not classified.
Symptoms/injuries after inhalation : May cause respiratory irritation.
Symptoms/injuries after skin contact : Causes severe skin burns. Cases of allergic contact dermatitis have been reported as a result of exposure to some Benzalkonium chloride compounds. This product is not expected to be toxic if absorbed through skin.
Symptoms/injuries after eye contact : Causes serious eye damage.
Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Pain, nausea and vomiting as well as muscular weakness, difficulty in breathing and depressed respiration may result.

Chronic symptoms : None expected under normal conditions of use.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Ethyl alcohol (64-17-5)
LC50 fish 1 12.0 - 16.0 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1 9268 - 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2 > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

12.2. Persistence and degradability

Process QDS® - Process Disinfectant/Sanitizer
Biodegradation Not established.

Ethyl alcohol (64-17-5)
Persistence and degradability Not established.
12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Log Pow</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol (64-17-5)</td>
<td>-0.32</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No additional information available.

12.5. Other adverse effects

| Effect on ozone layer | No additional information available |
| Effect on the global warming | No known ecological damage caused by this product. |
| Other information     | Avoid release to the environment. |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray or mixture of rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative of the nearest EPA Regional Office for guidance.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows. Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Empty the rinsate into application equipment or a mix tank. Follow pesticide disposal instructions for a rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

SECTION 14: Transport information

In accordance with DOT

Transport document description: UN1903 Disinfectants, liquid, corrosive n.o.s. (Contains: Quaternary ammonium compounds), 8, III

UN-No.(DOT): 1903
DOT NA no.: UN1903

Proper Shipping Name (DOT): Disinfectants, liquid, corrosive n.o.s. (Contains: Quaternary ammonium compounds)

Department of Transportation (DOT) Hazard Classes: 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT): 8 - Corrosive

DOT Symbols: G - Identifies PSN requiring a technical name
Packing group (DOT): III - Minor Danger
Marine pollutant: P

Additional information

Emergency Response Guide (ERG) Number: 153

Transport by sea

UN-No. (IMDG): 1903

Proper Shipping Name (IMDG): DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Contains: Quaternary ammonium compounds)
Class (IMDG): 8 - Corrosive substances
Packing group (IMDG): III - substances presenting minor danger
MFAG-No: 153
SECTION 15: Regulatory information

15.1. US Federal regulations

Process QDS® - Process Disinfectant/Sanitizer

SARA Section 311/312 Hazard Classes
Immediate (acute) health hazard

EPA FIFRA Pesticide Product Notice
This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

EPA FIFRA Signal Word
Danger

EPA FIFRA Hazard Statements
Keep out of reach of children.

EPA FIFRA Precautionary Statements
HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS.

Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides (68424-95-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethyl alcohol (64-17-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

No additional information available.

15.3. US State regulations

Ethyl alcohol (64-17-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision Date : 08/11/2015
Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Full text of H-phrases:

Acute Tox. 4 (Dermal) : Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral) : Acute toxicity (oral) Category 4
Aquatic Acute 1 : Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3 : Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1 : Hazardous to the aquatic environment - Chronic Hazard Category 1
# Process QDS®
## Process Disinfectant/Sanitizer
### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation Category 2A</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids Category 2</td>
</tr>
<tr>
<td>Flam. Liq. 3</td>
<td>Flammable liquids Category 3</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation Category 1B</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapor</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapor</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

**NFPA health hazard**: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

**NFPA fire hazard**: 0 - Materials that will not burn.

**NFPA reactivity**: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

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SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.