SECTION 1: Identification

1.1. Product Identifier

Product Form: Mixture
Product Name: Valsure® Neutral Detergent
Product Code: 1C54

1.2. Intended Use of the Product

Use of the substance/mixture: Manual/pre-cleaning, ultrasonics, hospital washer/disinfectors and automated mechanical washer applications for processing appropriate medical devices including surgical instruments. For professional use only.

1.3. Name, Address, and Telephone of the Responsible Party

Company
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_msds@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 Irrit. 2 H315
Eye Irrit. 2A H319

2.2. Label Elements

GHS-US Labeling
Hazard Pictograms (GHS-US):

Signal Word (GHS-US): Warning
Hazard Statements (GHS-US):
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
Precautionary Statements (GHS-US):
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other Hazards

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. This product contains trace amounts of formaldehyde. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

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>Citric acid</td>
<td>(CAS No) 77-92-9 (REACH No) 01-2119457026-42-0067</td>
<td>1.51</td>
<td>Comb. Dust Eye Irrit. 2A, H319</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16
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 where possible).
First-aid Measures After Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
First-aid Measures After Ingestion: Rinse mouth. DO NOT induce vomiting. Get medical advice and attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries: Causes irritation.
Symptoms/Injuries After Inhalation: May cause irritation to the respiratory tract.
Symptoms/Injuries After Skin Contact: Causes skin irritation.
Symptoms/Injuries After Eye Contact: Causes serious eye irritation.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: Fire-Fighting 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. A heavy water stream may spread burning liquid.

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. Use water spray or fog for cooling exposed containers.
Protection During Fighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products: Carbon oxides (CO, CO₂).

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Handle in accordance with good industrial hygiene and safety practice.
6.1.1. For Non-emergency Personnel
Protective Equipment: Use appropriate personal protection equipment (PPE).

6.1.2. For Emergency Responders
Protective Equipment: Use appropriate personal protection equipment (PPE).

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: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container for disposal. 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 if in accordance with National and local regulations.

6.4. Reference to Other Sections
See Section 8: Exposure Controls and Personal Protection.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling
Precautions for Safe Handling: Read label before use. Avoid all eye and skin contact and do not breathe vapor and mist. Use appropriate personal protection equipment (PPE).
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.
Specific End Use(s)  
No additional information available

Manual/pre-cleaning, ultrasounds, hospital washer/disinfectors and automated mechanical washer applications for processing appropriate medical devices including surgical instruments. For professional use only.

SECTION 8: Exposure Controls/personal Protection

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

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. Ensure all national/local regulations are observed.

Personal Protective Equipment


Materials for Protective Clothing

Chemically resistant materials and fabrics.

Hand Protection

Wear chemically resistant protective gloves.

Eye Protection

Chemical safety goggles.

Skin and Body Protection

Wear suitable protective clothing.

Respiratory Protection

Not necessary under normal conditions. If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

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
Odor: No data available
Odor Threshold: No data available
pH: 6 - 8
Evaporation rate: No data available
Melting Point: No data available
Freezing Point: No data available
Boiling Point: No data available
Flash Point: No data available
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
Relative Density: No data available
Specific Gravity: 1.015 - 1.027 g/mL
Solubility: Complete in water
Partition coefficient: n-octanol/water: No data available
Viscosity: No data available
Explosion Data – Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge: Not expected to present an explosion hazard due to static discharge

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 normal conditions.

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:

10.6 Hazardous Decomposition Products:
Carbon oxides (CO, CO₂), Nitrogen oxides, Hydrogen chloride, Phosgene, Formaldehyde.

SECTION 11: Toxicological Information

11.1 Information On Toxicological Effects

Acute Toxicity: Not classified

<table>
<thead>
<tr>
<th>Valsure® Neutral Detergent</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Citic acid (77-92-9)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>LD50 Dermal Rat</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: Causes skin irritation.

pH: 6 - 8

Serious Eye Damage/Irritation: Causes serious eye irritation.

pH: 6 - 8

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: 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 irritation to the respiratory tract.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: Ecological Information

12.1 Toxicity

Citic acid (77-92-9)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
</tr>
</tbody>
</table>

1-Dodecanamine, N,N-dimethyl-, N-oxide (1643-20-5)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ErC50 (algae)</td>
</tr>
</tbody>
</table>

12.2 Persistence and Degradability

<table>
<thead>
<tr>
<th>Valsure® Neutral Detergent</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Citric acid (77-92-9)</th>
<th>Persistence and Degradability</th>
<th>Readily biodegradable in water.</th>
</tr>
</thead>
</table>

12.3 Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Valsure® Neutral Detergent</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative Potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Citric acid (77-92-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>-1.72 (at 20 °C)</td>
</tr>
</tbody>
</table>

12.4 Mobility in Soil

No additional information available

12.5 Other Adverse Effects

Other Information

Avoid release to the environment. The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: Transport Information
# Valsure® Neutral Detergent
## Safety Data Sheet

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

---

### 14.4 In Accordance with TDG

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated for transport</td>
<td></td>
</tr>
</tbody>
</table>

#### In Accordance With ICAO/IATA/IMDG/DOT

---

### 14.1. UN Number

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated for transport</td>
<td></td>
</tr>
</tbody>
</table>

### 14.2. UN Proper Shipping Name

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated for transport</td>
<td></td>
</tr>
</tbody>
</table>

### 14.3. Additional Information

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport by Sea</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Air Transport</td>
<td>Not regulated for transport</td>
</tr>
</tbody>
</table>

---

### SECTION 15: Regulatory Information

#### 15.1 US Federal Regulations

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valsure® Neutral Detergent</td>
<td></td>
</tr>
</tbody>
</table>

**SARA Section 311/312 Hazard Classes**

<table>
<thead>
<tr>
<th>Hazard Classes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate (acute) health hazard</td>
<td></td>
</tr>
</tbody>
</table>

**Citric acid (77-92-9)**

- Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2 US State Regulations

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

#### 15.3. Canadian Regulations

**Citric acid (77-92-9)**

- Listed on the Canadian DSL (Domestic Substances List)
- Listed on the Canadian IDL (Ingredient Disclosure List)

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by HPR.

---

### SECTION 16: Other Information, Including Date Of Preparation Or Last Revision

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date</td>
<td>10/10/2018</td>
</tr>
</tbody>
</table>

Other Information:

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases:**

<table>
<thead>
<tr>
<th>Phrases</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comb. Dust</td>
<td>Combustible Dust</td>
</tr>
<tr>
<td>Eye Irr. 2A</td>
<td>Serious eye damage/eye irritation Category 2A</td>
</tr>
<tr>
<td>Skin Irrit 2A</td>
<td>Skin corrosion/irritation Category 2A</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
</tbody>
</table>

**NFPA Health Hazard**

1 - Exposure could cause irritation but only minor residual injury even if no treatment is 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.

---

*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.*