# Liqui-Jet™ 2 Instrument Detergent
## Safety Data Sheet

**In accordance with The Model Work Health and Safety Regulations, and the Globally Harmonized System of Classification**

**Issue Date:** 10/18/2019  
**Version:** 1.0

## SECTION 1: PRODUCT IDENTIFIER & IDENTITY FOR THE CHEMICAL

### 1.1 Product Identifier

- **Product Form:** Mixture  
- **Product Name:** Liqui-Jet™ 2 Instrument Detergent  
- **Product Code:** 1037

### 1.2 Intended Use of the Product

Instrument Detergent. For professional use only.

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

**Manufacturer**  
STERIS Corporation  
P.O. Box 147  
St. Louis, MO 63166 USA  
Telephone Number for Information: 1-800-548-4873 (Customer Service-Healthcare Products)  
web: [www.steris.com](http://www.steris.com)  
email: [asksteris_msds@steris.com](mailto:asksteris_msds@steris.com)

**Supplier**  
Device Technologies Australia Pty Ltd  
1 Garigal Road  
Belrose NSW 2085 Australia  
Telephone: 1800 429 551  
Fax: 612 9975 5711

Device Technologies New Zealand Ltd  
47 Arrenway Drive  
Albany Auckland 0632 New Zealand  
Telephone: 0508 338 423  
Fax: 649 913 2009

**1.4 Emergency Telephone Number**  
Emergency number: Australia: 1 800 429 551 (24 hours); New Zealand: 0508 338 423; CHEMTREC International: 1-703-741-5970

## SECTION 2: HAZARD IDENTIFICATION

### 2.1 Classification of the Substance or Mixture

**Classification according to NOHSC:**  
Hazardous Substance. Non-Dangerous Goods

**Classification (GHS-AU):**  
- Skin Corr. 1B: H314  
- Eye Dam. 1: H318  
- STOT RE 2: H373  
- Aquatic Acute 3: H402  
- Aquatic Chronic 3: H412  

Full text of H-phrases: see section 16

### 2.2 Label Elements

**GHS-AU Labeling**

- **Hazard Pictograms (GHS-AU):**
  - GHS05 - Corrosion  
  - GHS08 - Health hazard

- **Signal Word (GHS-AU):** Danger

- **Hazard Statements (GHS-AU):**  
  - H290 - May be corrosive to metals.  
  - H314 - Causes severe skin burns and eye damage.  
  - H318 - Causes severe skin damage.  
  - H373 - May cause damage to organisms through prolonged or repeated exposure.  
  - H402 - Harmful to aquatic life  
  - H412 - Harmful to aquatic life with long lasting effects.

- **Precautionary Statements (GHS-AU):**  
  - P260 - Do not breathe vapours, mist, spray.  
  - P264 - Wash hands thoroughly after handling.
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Non-GHS Hazards
Not available

2.3 Other Hazards
Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

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>% (w/w)</th>
<th>GHS-AU Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>(CAS No) 64-02-8</td>
<td>10 - 30</td>
<td>Comb. Dust, H232 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation: dust, mist), H332 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 3, H402 Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>Sodium silicate</td>
<td>(CAS No) 1344-09-8</td>
<td>1 - 5</td>
<td>Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335</td>
</tr>
</tbody>
</table>

Other Non-Hazardous Ingredients NA Up to 100 NA

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures
General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

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.

Personal Protection in First Aid and Measures: Use appropriate personal protection equipment (PPE).

4.2 Most Important Symptoms and Effects Both Acute and Delayed
General: Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Inhalation: Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: Corrosive. Causes burns.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Use of heavy stream of water may spread fire.
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5.2 Special Hazards Arising From the Substance or Mixture

Fire Hazard: Product is not flammable.
Explosion Hazard: Product is not explosive.
Reactivity: Contact with metals may evolve flammable hydrogen gas.

5.3 Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.
Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

HAZCHEM Emergency Action Code (Australia): 2R

Reference to Other Sections
Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing vapor, mist, or spray. Do not allow product to spread into the environment.

For Non-Emergency Personnel
Protective Equipment: Use appropriate personal protection equipment (PPE).

For Emergency Personnel
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

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: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Neutralize spill carefully with any weak acid and flush remainder with plenty of water. Collect spillage. Store away from other materials. Contact competent authorities after a spill.

6.4 Reference to Other Sections
See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards When Processed: May be corrosive to metals.
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. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. In cold weather, this product may form layers and freeze. This does not damage the product. If freezing occurs, thaw and remix thoroughly before using. Frozen material may be thawed in a warm room. Avoid localized overheating and vent drums while heating.
Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store in original container or corrosive resistant and/or lined container.
Storage Temperature: 46 °C (115 °F)

7.3 Specific End Use(s)

Instrument Detergent. For professional use only.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control Parameters

<table>
<thead>
<tr>
<th>Sodium hydroxide (1310-73-2)</th>
<th>USA ACGIH</th>
<th>ACGIH Ceiling (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
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**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.


**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Chemical safety goggles. A full face shield is recommended.

**Skin and Body Protection:** Wear suitable protective clothing. Wash contaminated clothing before reuse.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

**Other Information:** When using, do not eat, drink or smoke.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>9.1 Information on Basic Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
</tr>
<tr>
<td><strong>pH</strong></td>
</tr>
<tr>
<td><strong>Relative Evaporation Rate (butylacetate=1)</strong></td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
</tr>
<tr>
<td><strong>Freezing Point</strong></td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
</tr>
<tr>
<td><strong>Auto-ignition Temperature</strong></td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
</tr>
<tr>
<td><strong>Lower Flammable Limit</strong></td>
</tr>
<tr>
<td><strong>Upper Flammable Limit</strong></td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
</tr>
<tr>
<td><strong>Relative Vapor Density at 20 °C</strong></td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
</tr>
</tbody>
</table>

### SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** Contact with metals may evolve flammable hydrogen gas.

**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.


### SECTION 11: TOXICOLOGICAL INFORMATION

**11.1 Information on Toxicological Effects - Product**

Acute Toxicity: Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified [pH: 10.7 - 11.3 (1% Solution)]
Serious Eye Damage/Irritation: Not classified [pH: 10.7 - 11.3 (1% Solution)]
Respiratory or Skin Sensitization: Not classified
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Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Inhalation may cause immediate severe irritation progressing quickly to chemical burns.
Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.
Symptoms/Injuries After Eye Contact: Corrosive. Causes burns.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

11.2 Information on Toxicological Effects - Ingredient(s)
LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Sodium silicate (1344-09-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
<td>3400 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tetrasodium EDTA (64-02-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
<td>1780 mg/kg</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Ecology - General: Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Sodium hydroxide (1310-73-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
<td>45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>40 mg/l</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sodium silicate (1344-09-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
<td>301 - 478 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)</td>
</tr>
<tr>
<td>LC 50 Fish 2</td>
<td>3185 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tetrasodium EDTA (64-02-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
<td>486 (Exposure time: 96h - Species: Lepomis macrochirus)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>625 mg/l (Exposure time: 24 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>ErC50 (algae)</td>
<td>3 mg/l (exposure time: 96 h - Species: Green Algae)</td>
</tr>
</tbody>
</table>

12.2 Persistence and Degradability
Not established. May cause long-term adverse effects in the environment.

12.3 Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Sodium silicate (1344-09-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>(no bioaccumulation expected)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tetrasodium EDTA (64-02-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>5.01 (calculated)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>(no bioaccumulation)</td>
</tr>
</tbody>
</table>

12.4 Mobility in Soil
Not available

12.5 Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
Ecology – Waste Materials: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION
According to UNRTDG and ADG Code: Non-hazardous

In accordance with ADR / RID / IMDG / IATA / ADN

14.1 UN number
No dangerous good in sense of transport regulations

14.2 UN proper shipping name
Not applicable

14.3 Transport hazard class(es)
Not applicable - Non-hazardous
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14.4. Packing group
Not applicable

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user
14.6.1. Overland transport
Non-hazardous
14.6.2. Transport by sea
Non-hazardous
14.6.3. Air transport
Non-hazardous
14.6.4. Inland waterway transport
Non-hazardous

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 National Regulations

Sodium hydroxide (1310-73-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)

Sodium silicate (1344-09-8)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)

Tetrasodium EDTA (64-02-8)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)

15.2 International Agreements
No additional Information available

15.3 Australia National Regulations

Sodium hydroxide (1310-73-2)
Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Appendix E,Appendix F - Safety Statements,Appendix F - Warning Statements,Schedule 5,Schedule 6
High Volume Industrial Chemicals List Present

15.4 Australia Territory Regulations
No additional Information available

NZ - HSNO Approval Number HSR002526
Cleaning Products (Corrosive) Group Standard 2006

SECTION 16: OTHER INFORMATION

Revision Date : 10/18/2019

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.

SDS Australia GHS