1. Product and Company Identification

**Product Identifier**

**Product Name:** ISE Etching Solution  
**Product Code:** RO-1042374D  
**Recommended Use:** To clean and reactivate the Na electrode.

**Company**

Diamond Diagnostics Inc.  
333 Fiske Street  
Holliston, MA 01746

**Company Phone Number**  
508-429-0450

**Email**  
support@diamondddiagnostics.com

**Emergency Telephone No:**  
508-429-0450

2. Hazards Identification

**GHS- Classification**

**Classification**

Corrosive, Toxic

**Hazard Statements**

H300 Fatal if swallowed.  
H314 Causes severe skin burns and eye damage.

**Precautionary Statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P405 Store locked up.  
P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/Information on ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC No.</th>
<th>Reach Reg. No.</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Hydrogen fluoride</td>
<td>215-676-4</td>
<td>Not available</td>
<td>1341-49-7</td>
<td>&lt; 1%</td>
<td>Not available</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Eye Contact**

Flush affected area with copious amounts of water for at least 15 minutes. Seek medical aid for irritation.

**Skin Contact**

Flush affected area with copious amounts of water for at least 15 minutes. Seek medical aid for irritation. Remove contaminated clothing and wash before use.

**Inhalation**

Remove to fresh air. If symptoms persist or are severe, seek prompt medical assistance.

**Ingestion**

Do not induce vomiting. Seek medical aid.

**Notes to Physician**

Treat symptomatically.
5. Fire-Fighting Measures

Flammable Properties  No information available
Flash Point  No information available
Suitable Extinguishing Media  Suitable for surrounding fire
Hazardous Combustion Products  No information available
Protective Equipment and Precautions for Firefighters  Self-contained breathing apparatus and protective clothing.
Further Information  No information available

6. Accidental Release Measures

Personnel Precautions  Use personnel protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.
Methods for Containment & Cleaning  Soak up with non-combustible absorbent material. Rinse affected area with copious amounts of water. Dispose of in accordance with applicable federal, state, and local laws and regulations.
Environmental Precautions  Do not let product enter drains.

7. Handling and Storage

Handling  Avoid contact with skin and eyes. Avoid formation of dust aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventative fire protection. For precautions see section 2.2.
Storage  Keep container closed in a dry and well-ventilated place.
Specific use  See Section 1 – Recommended Use

8. Exposure Controls / Personnel

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Hydrogen fluoride</td>
<td>Not listed</td>
<td>PEL: 2.5 mg/m3&lt;br&gt;REL: 2.5 mg/m3&lt;br&gt;TLV: 2.5 mg/m3&lt;br&gt;EL: 2.5 mg/m3</td>
<td>Not listed</td>
</tr>
<tr>
<td>1341-49-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering Measures  Showers<br>Eye Wash Stations<br>Ventilation Systems
Personnel Protective Equipment
   Eye/Face Protection  Safety goggles with side-shields
   Skin Protection  Wear protective gloves/clothing
   Respiratory Protection  If exposure limits are exceeded or irritation is experienced; NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required high airborne containment concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures  Complete suit protecting against chemicals, Flame resistant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Environment Exposure  Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>2-4</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>0°C</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>Approx. 100 °C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate (solid, gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Upper/Lower flammability or explosive limits</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>No information available</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature °C</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No information available</td>
</tr>
<tr>
<td>Chemical Stability</td>
<td>Stable</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>No information available</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>No information available</td>
</tr>
<tr>
<td>Hazardous Polymerization:</td>
<td>Will not occur</td>
</tr>
<tr>
<td>Conditions to avoid:</td>
<td>Avoid exposure to heat and light</td>
</tr>
<tr>
<td>Suggested Storage:</td>
<td>Store as recommended on product label</td>
</tr>
</tbody>
</table>

### 11. Toxicological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Chronic Toxicity</td>
<td>Irritation of affected area</td>
</tr>
<tr>
<td>Target Organ Effects</td>
<td>No information available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.</td>
</tr>
</tbody>
</table>
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

12. Ecological Information

Ecotoxicity

No information available

13. Disposal Considerations

Waste Disposal Method

In accordance with applicable federal, state, and local laws and regulations.

Contaminated Packaging

In accordance with applicable federal, state, and local laws and regulations.

14. Transport Information

IATA

Not regulated

DOR

Not regulated

15. Regulatory Information

SARA 302 Components

No chemicals in this material are subject to reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts right to know components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania right to know components

No components are subject to the Pennsylvania Right to Know Act.

New Jersey right to know components

No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

Issuing Date

31-December-2008

Revision Date

30-November-2015

Revision Note

No information available

Recommended Restrictions

No Restrictions

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 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 text.