Material Name
E-Brite Ultra Alk P

Product Use
Plating Additive.

Details of the supplier of the safety data sheet
Electrochemical Products Inc.
17000 West Lincoln Ave
New Berlin, WI 53151
Phone: 262-786-9330
Emergency Phone #: NCEC (#EPI-29003) +1 202 464 2554, +44 1865 407333
E-mail: us-sales@epi.com
www.epi.com
Fax: 262-786-9403

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Eye Irritation - Category 1

GHS Label Elements

Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Causes severe skin burns and eye damage

Precautionary Statement(s)
Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Wash thoroughly after handling
Do not breathe dusts or mists

**Response**
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
Immediately call a POISON CENTER or doctor
Specific treatment (see label)

**Storage**
Store locked up
May cause mild eye or skin irritation.

**Disposal**
Dispose of contents/container in accordance with local/regional/national/international regulations

---
**Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>90-98</td>
</tr>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>0.1-0.2</td>
</tr>
</tbody>
</table>

---
**Section 4 - FIRST AID MEASURES**

**Inhalation**
If inhaled, immediately remove the affected person to fresh air.

**Skin**
Wash skin with soap and water.

**Eyes**
Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists, get medical attention.

**Ingestion**
If swallowed, give milk or water to dilute. Seek medical attention immediately. Never give anything by mouth to an unconscious person. Call a physician immediately.

---

**Section 5 - FIRE FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media**
Dry chemical, foam, carbon dioxide, water fog.

**Unsuitable Extinguishing Media**
None identified.

**Special Hazards Arising from the Chemical**
None identified.

**Hazardous Combustion Products**
None identified.

**Advice for firefighters**
None identified.

**Fire Fighting Measures**
Use methods suitable to fight surrounding fire.

---

**Section 6 - ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**
Wear protective gloves and eye/face protection.

**Methods and Materials for Containment and Cleaning Up**
None identified.

**Environmental Precautions**
Dike and contain the spill with sand and earth.

---

**Section 7 - HANDLING AND STORAGE**

**Conditions for Safe Storage, Including any Incompatibilities**
Store locked up

---

**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Component Exposure Limits**
Sodium hydroxide 1310-73-2
ACGIH: 2 mg/m3 Ceiling
NIOSH: 2 mg/m3 Ceiling
OSHA (US): 10 mg/m3 IDLH
Mexico: 2 mg/m3 Ceiling

**Biological limit value**
There are no biological limit values for any of this product's components.

**Engineering Controls**
Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/face protection**
Safety glasses. It is generally recognized that contact lenses should not be worn when working with chemicals because they may contribute to the severity of an eye injury.

**Skin Protection**
Wear rubber gloves, long sleeved shirt and trousers.

**Respiratory Protection**
Not normally needed.

**Glove Recommendations**
Wear rubber gloves.

---

**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear solution</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>11 - 13</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>212 °F</td>
</tr>
<tr>
<td>Freezing point</td>
<td>32 °F (0 °C)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>(Approx. equal to Water)</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
</tbody>
</table>
lower explosive limit | not available | decomposition | not available
upper explosive limit | not available | vapor pressure | not available
vapor density (air=1) | (approx. equal to water) | specific gravity (water=1) | 1 - 1.02
water solubility | completely | partition coefficient: n-octanol/water | not available
viscosity | not available | solubility (other) | not available
density | not available | voc | 0

section 10 - stability and reactivity

reactivity
no known hazardous reactions.

chemical stability
this is a stable material.

possibility of hazardous reactions
none identified. hazardous polymerization will not occur.

conditions to avoid
none identified.

incompatible materials
none identified.

hazardous decomposition products
none identified.

thermal decomposition products
none identified.

section 11 - toxicological information

acute and chronic toxicity

component analysis - ld50/lc50
the components of this material have been reviewed in various sources and the following selected endpoints are published:
Water (7732-18-5)  
Oral LD50 Rat >90 mL/kg  
Sodium hydroxide (1310-73-2)  
Dermal LD50 Rabbit 1350 mg/kg

**Immediate Effects**  
No information on significant adverse effects.

**Delayed Effects**  
No information on significant adverse effects.

**Irritation/Corrosivity Data**  
No data available.

**Respiratory Sensitization**  
No data available.

**Dermal Sensitization**  
No data available.

**Component Carcinogenicity**  
None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

**Germ Cell Mutagenicity**  
No data available.

**Tumorigenic Data**  
No data available

**Reproductive Toxicity**  
No data available.

**Specific Target Organ Toxicity - Single Exposure**  
No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
No data available.

**Aspiration hazard**  
No data available.

**Medical Conditions Aggravated by Exposure**  
No data available.

---

**Section 12 - ECOLOGICAL INFORMATION**

**Component Analysis - Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>EC number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>Fish:</td>
<td>LC50 96 h Oncorhynchus mykiss 45.4 mg/L [static]</td>
</tr>
</tbody>
</table>
Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: Sodium Hydroxide Solution
Hazard Class: 8
UN/NA #: 1824
Packing Group: II
Required Label(s): Corrosive

TDG Information:
Shipping Name: Sodium Hydroxide Solution
Hazard Class: 8
UN#: 1824
Packing Group: II
Required Label(s): Corrosive

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>CERCLA:</td>
<td>1000 lb final RQ; 454 kg final RQ</td>
</tr>
</tbody>
</table>

All components are on the U.S. EPA TSCA Inventory List. Supplier(s) of proprietary component(s) have stated that their components appear on the Canadian DSL/NDSL.

SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: no Chronic Health: no Fire: no Pressure: no Reactivity: no

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:
Not listed under California Proposition 65
Canada Regulations
This product is not WHMIS controlled.

Canadian WHMIS Ingredient Disclosure List (IDL)
Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component Analysis - Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water (7732-18-5)</td>
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</table>

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Section 16 - OTHER INFORMATION**

**HMIS Rating**
Health: 2  Fire: 0  Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe  * = Chronic hazard

**NFPA Ratings**
Health: 2  Fire: 0  Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Key / Legend**
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical
Other Information

Disclaimer:
Reasonable care has been taken in the preparation of this information; however, the manufacturer makes no warranty whatsoever including the warranty of merchantability, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental, consequential, or other such damages resulting from its use or misuse.