Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
E-Strip 930

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 #: Chemtrec #800-424-9300 (CCN7498)
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
Safety Data Sheet

Material Name: E-Strip 930
SDS ID: EPI-0423c

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>3-6</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>85-90</td>
</tr>
<tr>
<td>127-68-4</td>
<td>m-Nitrobenzenesulfonic acid, sodium salt</td>
<td>3-6</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

Inhalation
If inhaled, immediately remove the affected person to fresh air. If breathing is irregular or stopped, administer artificial respiration.

Skin
For skin contact flush with large amounts of water while removing contaminated clothing.

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

**Ingestion**
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Most Important Symptoms/Effects**

**Acute**
Breathing dust, mist or spray of this product may cause damage to the upper respiratory tract and lung tissue which can cause chemical pneumonia, depending on the severity of exposure.

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**Section 5 - FIRE FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media**
Water spray, dry chemical, carbon dioxide.

**Unsuitable Extinguishing Media**
None known.

**Hazardous Combustion Products**
Decomposition of this product may emit oxides of nitrogen and carbon monoxide.

**Fire Fighting Measures**
Firefighters should wear full protective clothing including self contained breathing apparatus. Do not flush washings to sewer or other waterways.

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**Section 6 - ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**
Isolate area. Keep unnecessary personnel away. Wear appropriate protective equipment during cleanup.

**Methods and Materials for Containment and Cleaning Up**
Wear appropriate protective equipment and clothing during clean-up. Material is corrosive; avoid contact during clean up. Avoid the generation of dusts during clean-up. Scoop up gross quantities of spilled material. Sweep up remaining material and dispose of contaminated material. After containment, it should be shoveled up or removed by vacuum truck (if liquid) to chemical waste area. Neutralize residue with dilute acid. Flush spill area with water followed by liberal coverage of Sodium Bicarbonate.

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**Section 7 - HANDLING AND STORAGE**

**Precautions for Safe Handling**
Wash thoroughly after handling.

**Conditions for Safe Storage, Including any Incompatibilities**
Store locked up.
Keep container tightly closed.

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### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits**

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>2 mg/m3 Ceiling</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>2 mg/m3 Ceiling</td>
</tr>
<tr>
<td>NIOSH/MSHA IDLH</td>
<td>10 mg/m3</td>
</tr>
<tr>
<td>OSHA (US):</td>
<td>2 mg/m3 TWA</td>
</tr>
<tr>
<td>Mexico:</td>
<td>2 mg/m3 Ceiling</td>
</tr>
</tbody>
</table>

**EU - Occupational Exposure** (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures
There are no biological limit values for any of this product's components.

**ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)**
There are no biological limit values for any of this product’s components.

**Engineering Controls**
Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

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

**Eye/face protection**
Wear safety glasses with side shields or chemical goggles.

**Skin Protection**
Use of protective coveralls and long sleeves is recommended.

**Respiratory Protection**
If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided.

**Glove Recommendations**
Wear impervious gloves.

**Protective Materials**
Eye wash fountain and emergency showers are recommended. Use good industrial hygiene practices in handling this material.
Section 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>Characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt;32</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Completely</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not available</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Slightly amber solution</td>
</tr>
<tr>
<td>pH</td>
<td>13 - 14 (Solution)</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;212</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>1.08 - 1.1</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC</td>
<td>0</td>
</tr>
</tbody>
</table>

Section 10 - STABILITY AND REACTIVITY

Reactivity
Explosive HYDROGEN GAS may be released if aqueous solutions of this material come into contact with reactive metals (IRON, ZINC, ALUMINUM).

Chemical Stability
Stable under normal conditions.

Possibility of Hazardous Reactions
Will not occur.
Conditions to Avoid
Avoid contact with acids.

Incompatible Materials
This product may react with strong acids.

Hazardous decomposition products
Explosive HYDROGEN GAS may be released if aqueous solutions of this material come into contact with reactive metals (ZINC and ALUMINUM).

Thermal decomposition products
Upon thermal decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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:
Sodium hydroxide (1310-73-2)
Dermal LD50 Rabbit 1350 mg/kg
Water (7732-18-5)
Oral LD50 Rat >90 mL/kg
m-Nitrobenzenesulfonic acid, sodium salt (127-68-4)
Oral LD50 Rat 11 g/kg
Inhalation LC50 Rat >5.1 mg/L 4 h (no deaths occurred)

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>LC50/EC50 (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>Fish: Oncorhynchus mykiss</td>
<td>45.4 [static]</td>
</tr>
<tr>
<td>m-Nitrobenzenesulfonic acid, sodium salt</td>
<td>127-68-4</td>
</tr>
<tr>
<td>Algae: Desmodesmus subspicatus</td>
<td>&gt;500 IUCLID</td>
</tr>
<tr>
<td>Invertebrate: Daphnia magna</td>
<td>8665 mg/L EPA</td>
</tr>
</tbody>
</table>

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose of waste material in accordance with all applicable Federal, State or provincial and local environmental regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. In case of large spills, follow all facility emergency response procedures. As shipped, this product would be considered a D002 (corrosive) waste.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: Sodium hydroxide, solution
Hazard Class: 8
UN/NA #: UN1824  
Packing Group: II  
Required Label(s): Corrosive  

TDG Information:  
Shipping Name: Sodium hydroxide, solution  
Hazard Class: 8  
UN#: UN1824  
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>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>
<tr>
<td>CERCLA:</td>
<td>1000 lb final RQ ; 454 kg final RQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m-Nitrobenzenesulfonic acid, sodium salt</td>
<td>127-68-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSCA 12b:</td>
<td>Section 4, 1 % de minimus concentration</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

U.S. State Regulations  
The following components appear on one or more of the following state hazardous substances lists:

<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>

Not listed under California Proposition 65  

Canada Regulations  
This material is a controlled product under Canadian WHMIS regulations.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td></td>
<td>1 %</td>
</tr>
</tbody>
</table>
m-Nitrobenzenesulfonic acid, sodium salt | 127-68-4 | 1 %

Component Analysis - Inventory
Sodium hydroxide (1310-73-2)

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

Water (7732-18-5)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</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>
<td>Yes</td>
</tr>
</tbody>
</table>

m-Nitrobenzenesulfonic acid, sodium salt (127-68-4)

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

Section 16 - OTHER INFORMATION

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

NFPA Ratings
Health: 3 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 Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency