Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
E-Brite Ultra Cu-Mg

Product Use
Copper Concentrate.

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 Sensitization - Category 1A
Hazardous to the Aquatic Environment - Acute - Category 2
Hazardous to the Aquatic Environment - Chronic - Category 2

GHS Label Elements

Symbol(s)

![Symbols](image1)

Signal Word
Warning

Hazard Statement(s)
May cause allergic skin reaction.
Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)
Prevention
Avoid breathing dust/fume/gas/mist/vapours/spray.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves.

**Response**
Collect spillage.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Specific treatment (see label).

**Storage**
None needed according to classification criteria.

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

**Other Hazards**
This product may cause irritation to the eyes. This product may cause irritation to the skin. This product may cause irritation to the respiratory system. Harmful if swallowed.

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**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>50-60</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Copper (+2) Complex</td>
<td>2-4</td>
</tr>
</tbody>
</table>

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**Section 4 - FIRST AID MEASURES**

**Description of Necessary Measures**
If the material is swallowed, get immediate medical attention or advice. Do NOT induce vomiting. Give several glasses of water to dilute contents of stomach and call a physician. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Inhalation**
Immediately move victim to fresh air. If symptoms persist, seek medical attention.

**Skin**
Wash skin with soap and water. If irritation persists get medical attention.

**Eyes**
Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

**Ingestion**
If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Give several glasses of water. Never give anything by mouth to a person who is unconscious or is having convulsions.

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**Section 5 - FIRE FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media**
Use methods suitable for the surrounding fire.

**Unsuitable Extinguishing Media**
None known.

**Hazardous Combustion Products**
Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may yield metallic oxides.

**Fire Fighting Measures**
Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

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**Section 6 - ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**
Isolate area. Keep unnecessary personnel away.

**Methods and Materials for Containment and Cleaning Up**
Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

**Environmental Precautions**
Do not discharge into sewers or waterways.

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**Section 7 - HANDLING AND STORAGE**

**Precautions for Safe Handling**
Wash thoroughly after handling. Do not reuse the empty container.

**Conditions for Safe Storage, Including any Incompatibilities**
None needed according to classification criteria.
Keep container tightly closed and in a well ventilated place.

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

**Component Exposure Limits**

ACGIH, NIOSH, EU, OSHA (US) and Mexico have not developed exposure limits for any of this product's components.

**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.

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**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Blue Solution</th>
<th>Physical State</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Mild-Musty</td>
<td>Color</td>
<td>Blue</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
<td>pH</td>
<td>7.8 - 8.9</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
<td>Boiling Point</td>
<td>218 °F (103 °C)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>32 °F (0 °C)</td>
<td>Evaporation Rate</td>
<td>(Approx. equal to Water)</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition</td>
<td>Not available</td>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
<td>Decomposition</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>(Approx. equal to water)</td>
<td>Specific Gravity (water=1)</td>
<td>1.18 - 1.3</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Completely</td>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Safety Data Sheet

Material Name: E-Brite Ultra Cu-Mg

SDS ID: EPI-0012c

<table>
<thead>
<tr>
<th>Density</th>
<th>Not available</th>
<th>VOC</th>
<th>0</th>
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</thead>
</table>

Section 10 - STABILITY AND REACTIVITY

Reactivity
Will not occur.

Chemical Stability
This is a stable material.

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Conditions to Avoid
This product may react with strong acids or oxidizing agents.

Incompatible Materials
This product may react with strong acids. This product may react with oxidizing agents.

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

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:
Water (7732-18-5)
Oral LD50 Rat >90 mL/kg
Copper (+2) Complex (Trade Secret)
Oral LD50 Rat 960 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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (+2) Complex</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Fish:</td>
<td>LC50 96 h Lepomis macrochirus 0.66 - 1.15 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 0.96 - 1.8 mg/L [static]; LC50 96 h Oncorhynchus mykiss 0.1478 - 0.165 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 0.09 - 0.19 mg/L [static]; LC50 96 h Pimephales promelas 0.6752 mg/L [static]</td>
</tr>
<tr>
<td>Invertebrate:</td>
<td>EC50 48 h Daphnia magna 0.147 - 0.227 mg/L [static] EPA</td>
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</table>

Section 13 - DISPOSAL CONSIDERATIONS
Disposal Methods
Waste must be handled in accordance with all federal, state, provincial, and local regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
No Classification assigned.

TDG Information:
No Classification assigned.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

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
None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA

Not listed under California Proposition 65

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

Component Analysis - Inventory
Water (7732-18-5)

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<tbody>
<tr>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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Copper (+2) Complex (Trade Secret)

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<td>Yes</td>
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<td>No</td>
</tr>
</tbody>
</table>
Safety Data Sheet

Material Name: E-Brite Ultra Cu-Mg
SDS ID: EPI-0012c

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

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; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; JP - Japan; Kow - Octanol/water partition coefficient; KECL - Korea Existing Chemicals List; KEKI - Korea Existing Chemicals List; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH-Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act.; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

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.