



## Safety Data Sheet

Material Name: E-Brite 700SB-B

SDS ID: EPI-0145R

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

E-Brite 700SB-B

**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.**

Acute Toxicity - Oral - Category 4

Acute Toxicity - Dermal - Category 4

Acute Toxicity - Inhalation - Dust/Mist - Category 3

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 1

Skin Sensitization - Category 1

Germ Cell Mutagenicity - Category 2

Carcinogenicity - Category 1B

Hazardous to the Aquatic Environment - Chronic - Category 3

**GHS Label Elements**

**Symbol(s)**



**Signal Word**

Danger

**Hazard Statement(s)**

Harmful if swallowed.

Harmful in contact with skin.

Toxic if inhaled.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.



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Suspected of causing genetic defects.

May cause cancer.

Harmful to aquatic life with long lasting effects.

### **Precautionary Statement(s)**

#### **Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear protective gloves.

#### **Response**

IF exposed or concerned: Get medical advice/attention.

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: Wash with plenty of soap and water.

Take off contaminated clothing and wash before reuse.

Rinse mouth.

Immediately call a POISON CENTER or doctor.

Specific treatment (see label).

#### **Storage**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

#### **Disposal**

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

#### **Other Hazards**

May be irritating to the eyes and skin. Toxic if swallowed, may be fatal. Can cause dizziness. Can cause kidney damage and disturb blood coagulation. May cause central nervous system depression.

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

CAS	Component Name	Percent
7732-18-5	Water	85-95
110-65-6	1,4-Butynediol	4-8
3031-66-1	3-Hexyne-2,5-diol	1-3
302-17-0	1,1-Ethanediol, 2,2,2-trichloro-	1-3



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50-00-0	Formaldehyde	0.06-0.09
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### Section 4 - FIRST AID MEASURES

#### Inhalation

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

#### Skin

Wash skin with soap and water.

#### Eyes

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

#### Ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. Call a physician immediately.

### Section 5 - FIRE FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

##### Unsuitable Extinguishing Media

No specific measures identified.

#### Hazardous Combustion Products

None.

#### Advice for firefighters

None.

#### Fire Fighting Measures

Use methods suitable for the surrounding fire.

### Section 6 - ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

No additional information available.

#### Methods and Materials for Containment and Cleaning Up

Isolate area. Keep unnecessary personnel away.

#### Environmental Precautions

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. Block any potential routes to water systems.

### Section 7 - HANDLING AND STORAGE

#### Precautions for Safe Handling

Wash thoroughly after handling. Keep container tightly closed.

#### Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Keep the container tightly closed and in a cool, well-ventilated place.



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### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

Formaldehyde	50-00-0
ACGIH:	0.1 ppm TWA
	0.3 ppm STEL
NIOSH:	0.016 ppm TWA
	0.1 ppm Ceiling 15 min
	SK: DIR(IRR)-SEN (Apr 2011 )
	20 ppm IDLH
OSHA (US):	0.75 ppm TWA
	2 ppm STEL (See 29 CFR 1910.1048 ) 15 min ; 0.5 ppm Action Level (See 29 CFR 1910.1048 ) ; 0.75 ppm TWA (See 29 CFR 1910.1048 )
	2 ppm STEL (see 29 CFR 1910.1048 )
Mexico:	2 ppm Ceiling ; 3 mg/m3 Ceiling

#### 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.

##### Skin Protection

Use impervious gloves. Use of protective coveralls and long sleeves is recommended. Use of an impervious apron is recommended.

##### Respiratory Protection

Use NIOSH approved respirator appropriate for the vapor or mist at the point of use.

##### Glove Recommendations

Use impervious gloves.

##### Protective Materials

Eye wash fountain and emergency showers are recommended.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear yellow solution	Physical State	Liquid
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Odor	Slight odor.	Color	Yellow.
Odor Threshold	Not available	pH	3 - 5
Melting Point	Not available	Boiling Point	213 °F
Boiling Point Range	Not available	Freezing point	32 °F (0 °C)
Evaporation Rate	(Approx. equal to Water)	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	(Approx. equal to water)	Specific Gravity (water=1)	1.04 - 1.67
Water Solubility	Completely	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	Not available
VOC	0	Molecular Weight	Not available

### Section 10 - STABILITY AND REACTIVITY

#### Chemical Stability

This is a stable material.

#### Possibility of Hazardous Reactions

Will not occur.

#### Conditions to Avoid

None.

#### Incompatible Materials

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

#### Hazardous decomposition products

None.



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### Section 11 - TOXICOLOGICAL INFORMATION

#### Information on Likely Routes of Exposure

##### Ingestion

May be harmful or toxic if swallowed.

##### Acute and Chronic Toxicity

This product may cause irritation to the eyes. This product may cause irritation to the skin.

##### 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

##### 1,4-Butynediol (110-65-6)

Oral LD50 Rat 100 mg/kg

Dermal LD50 Rabbit 5 g/kg

Inhalation LC50 Rat 0.69 mg/L 4 h (test substance administered in an aqueous solution )

##### 1,1-Ethanediol, 2,2,2-trichloro- (302-17-0)

Oral LD50 Rat 479 mg/kg

Dermal LD50 Rat 3030 mg/kg

##### Formaldehyde (50-00-0)

Oral LD50 Rat 100 mg/kg

Dermal LD50 Rabbit 270 mg/kg

Inhalation LC50 Rat 0.578 mg/L 4 h

##### Product Toxicity Data

##### Acute Toxicity Estimate

No data available.

##### 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

1,1-Ethanediol, 2,2,2-trichloro-	302-17-0
IARC:	Monograph 106 [2014] ; Monograph 84 [2004] ; Monograph 63 [1995] (Group 2A (probably carcinogenic to humans))
Formaldehyde	50-00-0
ACGIH:	A1 - Confirmed Human Carcinogen



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IARC:	Monograph 100F [2012] ; Monograph 88 [2006] ; Monograph 62 [1995] ; Supplement 7 [1987] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen
DFG:	Category 4 (no significant contribution to human cancer )
OSHA:	Present
OSHA:	see 29 CFR 1910.1048
NIOSH:	potential occupational carcinogen

### 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

<b>1,4-Butynediol</b>	<b>110-65-6</b>
Fish:	LC50 96 h Pimephales promelas 49.3 - 58.3 mg/L [flow-through ]
Algae:	EC50 96 h Desmodesmus subspicatus 430 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus 480 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna Straus 26.8 mg/L IUCLID
<b>Formaldehyde</b>	<b>50-00-0</b>
Fish:	LC50 96 h Pimephales promelas 22.6 - 25.7 mg/L [flow-through ] ; LC50 96 h Lepomis macrochirus 1510 µg/L [static ] ; LC50 96 h Brachydanio rerio 41 mg/L [static ] ; LC50 96 h Oncorhynchus mykiss 0.032 - 0.226 mL/L [flow-through ] ; LC50 96 h Oncorhynchus mykiss 100 - 136 mg/L [static ] ; LC50 96 h Pimephales promelas 23.2 - 29.7 mg/L [static ]



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Invertebrate:	LC50 48 h Daphnia magna 2 mg/L IUCLID ; EC50 48 h Daphnia magna 11.3 - 18 mg/L [Static ] EPA
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### Section 13 - DISPOSAL CONSIDERATIONS

#### Disposal Methods

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Transport waste material to an authorized waste location, or incinerate under controlled conditions.

#### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

### Section 14 - TRANSPORT INFORMATION

#### US DOT Information:

No Classification assigned.

#### International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Formaldehyde	50-00-0
IBC Code:	Category Y (<=45% solution )

### 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.

Formaldehyde	50-00-0
SARA 302:	500 lb TPQ
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
OSHA (safety):	1000 lb TQ
SARA 304:	100 lb EPCRA RQ

#### SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Carcinogenicity; Acute toxicity; Skin Corrosion/Irritation; Respiratory/Skin Sensitization; Serious Eye Damage/Eye Irritation; Germ Cell Mutagenicity

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:





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Component	CAS	CA	MA	MN	NJ	PA
1,4-Butynediol	110-65-6	No	No	No	Yes	No
1,1-Ethanediol, 2,2,2-trichloro-	302-17-0	No	No	No	Yes	No
Formaldehyde	50-00-0	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer

1,1-Ethanediol, 2,2,2-trichloro-	302-17-0
Carc:	carcinogen , 9/16/2013
Formaldehyde	50-00-0
Carc:	carcinogen , 1/1/1988 (gas )

### Canada 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

Formaldehyde	50-00-0
	0.1 %

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

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW	VN (Draft)
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes

### 1,4-Butynediol (110-65-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW	VN (Draft)



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Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
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### 3-Hexyne-2,5-diol (3031-66-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW	VN (Draft)
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes

### 1,1-Ethandiol, 2,2,2-trichloro- (302-17-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW	VN (Draft)
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No

### Formaldehyde (50-00-0)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW	VN (Draft)
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes

## Section 16 - OTHER INFORMATION

### HMIS Rating

Health: 2 Fire: 0 Reactivity: 1

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



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ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); 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; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); 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; F - Background (for Venezuela Biological Exposure Indices); 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; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; 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; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; 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; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

### **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..