

# SAFETY DATA SHEET



Revision date 13-Jan-2023

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** E-Brite 50/50 Ready To Plate

### Other means of identification

**Product Code(s)** EPI-0025

**UN number or ID number** UN3082

**Synonyms** None

### Details of the supplier of the safety data sheet

#### Manufacturer Address

Electrochemical Products Inc.  
17000 West Lincoln Ave  
New Berlin, WI 53151  
Phone: 262-786-9330  
E-mail: us-sales@epi.com  
www.epi.com  
Fax: 262-786-9403

### Emergency telephone number

**Emergency Telephone** NCEC (#EPI-29003) +1 202 464 2554, +44 1865 407333

## 2. Hazard(s) identification

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1B

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

Causes skin irritation  
Causes serious eye damage  
May cause cancer

**Appearance** Colorless Clear Solution**Physical state** Liquid**Odor** Odorless**Precautionary Statements - Prevention**

Obtain special instructions before use

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

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

Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of water and soap

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Rinse mouth

Do NOT induce vomiting

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

**3. Composition/information on ingredients****Substance**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	60-90	*
Silver nitrate	7761-88-8	1-3	*
Potassium hydroxide	1310-58-3	1-3	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. First-aid measures****Description of first aid measures****General advice**

IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

#### **Most important symptoms and effects, both acute and delayed**

**Symptoms** Burning sensation.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Silver nitrate 7761-88-8	TWA: 0.01 mg/m <sup>3</sup> Ag	TWA: 0.01 mg/m <sup>3</sup> Ag (vacated) TWA: 0.01 mg/m <sup>3</sup> Ag	IDLH: 10 mg/m <sup>3</sup> Ag TWA: 0.01 mg/m <sup>3</sup> Ag
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	-	Ceiling: 2 mg/m <sup>3</sup>

#### Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Tight sealing safety goggles.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

**Physical state** Liquid  
**Appearance** Colorless Clear Solution  
**Color** colorless  
**Odor** Odorless

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	9.0 - 9.6	None known
Melting point / freezing point	0 °C / 32 °F	None known
Boiling point / boiling range	104.4 °C / 219.9 °F	None known
Flash point	No data available	None known
Relative density	1.08 - 1.12	None known
Water solubility	Completely	None known
<u>Other information</u>		
VOC Content (%)	0	

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.
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### Acute toxicity

#### Numerical measures of toxicity

No information available

#### The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	17,528.40 mg/kg
<b>ATEmix (dermal)</b>	24,242.40 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	17.60 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50

Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Silver nitrate 7761-88-8	= 1173 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 750 µg/m <sup>3</sup> ( Rat ) 4 h
Potassium hydroxide 1310-58-3	= 284 mg/kg ( Rat )	-	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Irritating to skin.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Silver nitrate 7761-88-8	-	Group 2A	-	X

**Legend****IARC (International Agency for Research on Cancer)**

Group 2A - Probably Carcinogenic to Humans

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Target organ effects</b>	Respiratory system, Eyes, Skin, Nasal Septum.
<b>Aspiration hazard</b>	No information available.
<b>Other adverse effects</b>	No information available.
<b>Interactive effects</b>	No information available.

**12. Ecological information**

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Silver nitrate	-	LC50: 0.001339 -	-	EC50: 0.0008 -

7761-88-8		0.001637mg/L (96h, Oncorhynchus mykiss) LC50: 0.00181 - 0.00214mg/L (96h, Pimephales promelas) LC50: 0.00452 - 0.00638mg/L (96h, Pimephales promelas) LC50: 0.00512 - 0.00787mg/L (96h, Poecilia reticulata) LC50: 0.0064 - 0.0106mg/L (96h, Pimephales promelas) LC50: 0.00839 - 0.1802mg/L (96h, Oncorhynchus mykiss) LC50: 0.009 - 0.02mg/L (96h, Lepomis macrochirus) LC50: 0.0242 - 0.0484mg/L (96h, Lepomis macrochirus) LC50: 0.05 - 0.07mg/L (96h, Lepomis macrochirus) LC50: =0.0027mg/L (96h, Cyprinus carpio) LC50: =0.0075mg/L (96h, Oncorhynchus mykiss) LC50: =0.009mg/L (96h, Pimephales promelas)		0.001mg/L (48h, Daphnia magna) EC50: 0.0008 - 0.0011mg/L (48h, Daphnia magna) EC50: =0.0006mg/L (48h, Daphnia magna)
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**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

#### Component Information

Chemical name	Partition coefficient
Potassium hydroxide	0.65
1310-58-3	0.83

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

#### DOT

UN number or ID number UN3082

<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Reportable Quantity (RQ)</b>	(Potassium hydroxide: RQ (kg)= 454.00, Silver nitrate: RQ (kg)= 0.454) Potassium hydroxide: RQ (lb)= 1000.00, Silver nitrate: RQ (lb)= 1
<b>DOT reportable quantity kg (calculated)</b>	Potassium hydroxide: RQ (kg)= 22700.00, Silver nitrate: RQ (kg)= 23.00
<b>DOT Reportable Quantity lbs. (calculated)</b>	Potassium hydroxide: RQ (lb)= 50000.00, Silver nitrate: RQ (lb)= 50.00
<b>Special Provisions</b>	8, 146, 173, 335, IB3, T4, TP1, TP29
<b>DOT Marine Pollutant Description</b>	NP UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III, Marine pollutant
<b>Emergency Response Guide Number</b>	171

**TDG**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Special Provisions</b>	16, 99
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III

**MEX**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Technical Name</b>	Potassium hydroxide, Silver nitrate
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III
<b>Special Provisions</b>	274, 331, 335

**ICAO (air)**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III
<b>Special Provisions</b>	A97, A158, A197, A215

**IATA**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Technical Name</b>	Potassium hydroxide, Silver nitrate
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III
<b>Special Provisions</b>	A97, A158, A197
<b>ERG Code</b>	9L

**IMDG**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>EmS-No</b>	F-A, S-F
<b>Special Provisions</b>	274, 335, 969
<b>Marine pollutant</b>	P
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III



nitrate), 9, III, Marine pollutant

**RID**

**UN number or ID number** UN3082  
**UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**Transport hazard class(es)** 9  
**Packing group** III  
**Classification code** M6  
**Special Provisions** 274, 335, 375, 601  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III

**ADR**

**UN number or ID number** UN3082  
**UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**Transport hazard class(es)** 9  
**Packing group** III  
**Classification code** M6  
**Tunnel restriction code** (-)  
**Special Provisions** 274, 335, 601, 375  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III, (-)

**ADN**

**UN number or ID number** UN3082  
**UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**Transport hazard class(es)** 9  
**Packing group** III  
**Classification code** M6  
**Special Provisions** 274, 335, 375, 601  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Potassium hydroxide, Silver nitrate), 9, III  
**Equipment Requirements** PP

**15. Regulatory information****International Inventories**

**TSCA** Complies

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Water	7732-18-5	Present	Active
Trade secret	-	Present	Active
Trade secret	-	Present	Active
Potassium hydroxide	1310-58-3	Present	Active
Silver nitrate	7761-88-8	Present	Active
Trade secret	-	Present	Active

**DSL/NDL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Silver nitrate 7761-88-8	1 lb	-	RQ 1 lb final RQ RQ 0.454 kg final RQ
Potassium hydroxide 1310-58-3	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Potassium hydroxide 1310-58-3	X	-	X
Silver nitrate 7761-88-8	X	-	X

### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

## **16. Other information**

**NFPA** Health hazards 3 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards 3\* Flammability 0 Physical hazards 0 Personal protection X  
*Chronic Hazard Star Legend* \* = Chronic Health Hazard

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 13-Jan-2023

**Revision Note** No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a 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 materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**