

# SAFETY DATA SHEET



Revision date 05-May-2022

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** E-Brite 23-11R

### Other means of identification

**Product Code(s)** EPI-0256C

**UN number or ID number** UN1814

**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 1
Serious eye damage/eye irritation	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

Causes severe skin burns and eye damage



<b>Appearance</b> Clear, colorless to pale yellow	<b>Physical state</b> Liquid	<b>Odor</b> Characteristic odor
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**Precautionary Statements - Prevention**

Do not breathe dusts or mists

Wash face, hands and any exposed skin thoroughly after handling

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

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor

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

Immediately call a POISON CENTER or doctor

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

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

Immediately call a POISON CENTER or doctor

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

No information available.

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

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	98-99.5	*
Potassium hydroxide	1310-58-3	0.1-0.3	*
Sodium cyanide	143-33-9	0.05-0.09	*

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

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

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).

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

<b>Symptoms</b>	Burning sensation.
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#### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.
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### **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>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.
<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>	Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<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. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. 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. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	-	Ceiling: 2 mg/m <sup>3</sup>
Sodium cyanide 143-33-9	S* Ceiling: 5 mg/m <sup>3</sup> CN	TWA: 5 mg/m <sup>3</sup> CN (vacated) TWA: 5 mg/m <sup>3</sup> S* as CN	IDLH: 25 mg/m <sup>3</sup> CN Ceiling: 4.7 ppm CN 10 min Ceiling: 5 mg/m <sup>3</sup> CN 10 min

#### 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. Face protection shield.

#### Hand protection

Wear suitable gloves. Impervious gloves.

#### Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

#### 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. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear, colorless to pale yellow
<b>Color</b>	Clear to pale yellow
<b>Odor</b>	Characteristic odor

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	11.8 - 12.7	None known
<b>Melting point / freezing point</b>	0 °C / 32 °F	None known
<b>Boiling point / boiling range</b>	103 °C / 217.4 °F	None known
<b>Flash point</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	Completely	None known

### Other information

<b>VOC Content (%)</b>	0
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## 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>	Exposure to air or moisture over prolonged periods.
<b>Incompatible materials</b>	Acids. Bases. Oxidizing agent.
<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. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

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

**Symptoms** Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Acute toxicity****Numerical measures of toxicity**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Potassium hydroxide 1310-58-3	= 284 mg/kg ( Rat )	-	-
Sodium cyanide 143-33-9	= 5.733 mg/kg ( Rat )	= 14.602 mg/kg ( Rabbit )	= 0.16 mg/L ( Rat ) 1 h

**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. Causes burns.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<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**

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium cyanide	-	LC50: 0.0391 -	-	-

143-33-9		0.0548mg/L (96h, Oncorhynchus mykiss) LC50: 0.0558 - 0.0586mg/L (96h, Oncorhynchus mykiss) LC50: 0.066 - 0.0852mg/L (96h, Lepomis macrochirus) LC50: 0.0712 - 0.0936mg/L (96h, Pimephales promelas) LC50: =0.15mg/L (96h, Lepomis macrochirus) LC50: =0.17mg/L (96h, Pimephales promelas)		
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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 1310-58-3	0.65 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.

**US EPA Waste Number** U204 P106

### 14. Transport information

#### DOT

**UN number or ID number** UN1814  
**Proper shipping name** Potassium hydroxide, solution  
**Transport hazard class(es)** 8  
**Packing group** II  
**Reportable Quantity (RQ)** (Sodium cyanide: RQ (kg)= 4.54) Sodium cyanide: RQ (lb)= 10  
**DOT reportable quantity kg (calculated)** Sodium cyanide: RQ (kg)= 5218.00  
**DOT Reportable Quantity lbs. (calculated)** Sodium cyanide: RQ (lb)= 11494.00  
**Special Provisions** B2, IB2, T7, TP2  
**DOT Marine Pollutant** NP  
**Description** UN1814, Potassium hydroxide, solution, 8, II  
**Emergency Response Guide Number** 154

#### TDG

**UN number or ID number** UN1814

<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II

**MEX**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II

**ICAO (air)**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II
<b>Special Provisions</b>	A3

**IATA**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II
<b>Special Provisions</b>	A3, A803
<b>ERG Code</b>	8L

**IMDG**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>EmS-No</b>	F-A, S-B
<b>Marine pollutant</b>	NP
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II

**RID**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Classification code</b>	C5
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II

**ADR**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Classification code</b>	C5
<b>Tunnel restriction code</b>	(E)
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II, (E)

**ADN**

<b>UN number or ID number</b>	UN1814
<b>UN proper shipping name</b>	Potassium hydroxide solution
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Classification code</b>	C5
<b>Description</b>	UN1814, Potassium hydroxide solution, 8, II
<b>Equipment Requirements</b>	PP, EP



## 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
Potassium hydroxide	1310-58-3	Present	Active
Sodium cyanide	143-33-9	Present	Active
Copper salt	-	Present	Active
Buffer	-	Present	Active

**DSL/NDSL** 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)
Potassium hydroxide 1310-58-3	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Sodium cyanide 143-33-9	10 lb	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Sodium cyanide - 143-33-9	Male Reproductive

**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
Sodium cyanide 143-33-9	X	-	X
Copper salt	X	-	X
Buffer	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

**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** 05-May-2022

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**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**