



## Safety Data Sheet

Material Name: E-Prep 270 Booster

SDS ID: EPI-0436c

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### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

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**Material Name**

E-Prep 270 Booster

**Product Use**

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

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### Section 2 - HAZARDS IDENTIFICATION

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Acute Toxicity - Inhalation - Vapor - Category 3

Skin Corrosion/Irritation - Category 1

Serious Eye Damage/Eye Irritation - Category 1

**GHS Label Elements**

**Symbol(s)**



**Signal Word**

Danger

**Hazard Statement(s)**

Toxic if inhaled.

Causes severe skin burns and eye damage.

**Precautionary Statement(s)**

**Prevention**



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Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.  
Do not breathe dusts or mists.

### Response

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 (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
Wash contaminated clothing before reuse.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
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.

### Statement of Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown acute toxicity.

### Other Hazards

Inhalation of mists or vapors may produce upper airway edema, wheezing, pulmonary edema, pneumonitis and respiratory failure. This product may be severely irritating or corrosive to the eyes. This product is severely irritating or corrosive to the skin. If swallowed, can cause burns or irritation of mucous membranes of the mouth, throat, esophagus and stomach. Swallowing the solution can cause death.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
7732-18-5	Water	45-55
7664-38-2	Phosphoric acid	10-15
7697-37-2	Nitric acid	35-40

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### Section 4 - FIRST AID MEASURES

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#### **Inhalation**

If inhaled, immediately remove the affected person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen if qualified personnel are available.

#### **Skin**

Immediately flush skin with lots of running water for 15 minutes. Remove contaminated clothing and shoes. Wash before reuse. Get immediate medical attention.

#### **Eyes**

Object is to flush material out immediately then seek medical attention. Washing eyes within one (1) minute is essential to achieve maximum effectiveness. Immediately flush with lots of running water for 30 minutes, lifting the upper and lower eye lids occasionally. Get immediate medical attention.

#### **Ingestion**

If swallowed, get immediate medical attention! DO NOT INDUCE VOMITING! Give large quantities of water. Never give anything by mouth to an unconscious person. Aspiration hazard: If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

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### Section 5 - FIRE FIGHTING MEASURES

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#### **Extinguishing Media**

##### **Suitable Extinguishing Media**

Dry chemical, foam, carbon dioxide, water fog.

##### **Unsuitable Extinguishing Media**

None identified.

#### **Special Hazards Arising from the Chemical**

None identified.

#### **Hazardous Combustion Products**

None identified.

#### **Advice for firefighters**

Component is an oxidizer which may react with organic compounds. This product may react with light metals (aluminum) to form hydrogen gas. Product may react with strong oxidizing materials, bases and metals. oxidizer.

#### **Fire Fighting Measures**

Use methods suitable to fight surrounding fire. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. If possible, firefighters should control runoff water to prevent environmental contamination. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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### Section 6 - ACCIDENTAL RELEASE MEASURES

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

Wear protective gloves and eye/face protection.

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

None identified.

#### Environmental Precautions

Dike and contain the spill with sand and earth. Sweep up and shovel into suitable containers for disposal. Do not flush to sewer.

### Section 7 - HANDLING AND STORAGE

#### Precautions for Safe Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.

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

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

Store locked up.

Store in a dry place. Store in a closed container.

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

Phosphoric acid	7664-38-2
ACGIH:	1 mg/m <sup>3</sup> TWA
	3 mg/m <sup>3</sup> STEL
NIOSH:	1 mg/m <sup>3</sup> TWA
	3 mg/m <sup>3</sup> STEL
	1000 mg/m <sup>3</sup> IDLH
Europe:	1 mg/m <sup>3</sup> TWA
	2 mg/m <sup>3</sup> STEL
OSHA (US):	1 mg/m <sup>3</sup> TWA



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Mexico:	1 mg/m <sup>3</sup> TWA LMPE-PPT
	3 mg/m <sup>3</sup> STEL [LMPE-CT]
Nitric acid	7697-37-2
ACGIH:	2 ppm TWA
	4 ppm STEL
NIOSH:	2 ppm TWA; 5 mg/m <sup>3</sup> TWA
	4 ppm STEL; 10 mg/m <sup>3</sup> STEL
	25 ppm IDLH
Europe:	1 ppm STEL; 2.6 mg/m <sup>3</sup> STEL
OSHA (US):	2 ppm TWA; 5 mg/m <sup>3</sup> TWA
Mexico:	2 ppm TWA LMPE-PPT; 5 mg/m <sup>3</sup> TWA LMPE-PPT
	4 ppm STEL [LMPE-CT]; 10 mg/m <sup>3</sup> STEL [LMPE-CT]

### 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

Local exhaust is suggested for use, where possible, in enclosed or confined spaces. Use a NIOSH-approved respirator if exposure limits are exceeded.

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

#### Eye/face protection

Wear chemical goggles and / or face shield. It is generally recommended that contact lenses should not be worn when working with chemicals because they may contribute to the severity of an eye injury.

#### Skin Protection

Wear rubber gloves, long sleeved shirt and trousers. Use body protection appropriate for task (e.g., Tyvek suit, rubber apron).

#### 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 rubber gloves.



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### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear liquid	<b>Physical State</b>	Liquid
<b>Odor</b>	Acidic	<b>Color</b>	Colorless
<b>Odor Threshold</b>	Not available	<b>pH</b>	<1
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	212 °F
<b>Freezing point</b>	32 °F (0 °C)	<b>Evaporation Rate</b>	(Approx. equal to Water)
<b>Boiling Point Range</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition</b>	Not available	<b>Flash Point</b>	Not available
<b>Lower Explosive Limit</b>	Not available	<b>Decomposition</b>	Not available
<b>Upper Explosive Limit</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air=1)</b>	(Approx. equal to water)	<b>Specific Gravity (water=1)</b>	1.1 - 1.3
<b>Water Solubility</b>	Completely	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Not available
<b>Density</b>	Not available	<b>VOC</b>	0

### Section 10 - STABILITY AND REACTIVITY

#### Reactivity

Hazardous polymerization will not occur under normal conditions of storage and use. This product may react with aluminum, zinc, and tin to generate flammable hydrogen gas. Also reacts with Cyanides, Sulfides, and Carbides.

#### Chemical Stability

This is a stable material.

#### Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### Conditions to Avoid



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Avoid contact with strong oxidizers, strong acids and strong bases. Cyanides. Zinc. Do not store in sunlight. Do not store above 120°F (49°C).

### Incompatible Materials

Avoid contact with alkalis, oxidizing and reducing materials, cyanides, sulfides and combustible materials.

### Hazardous decomposition products

Oxides of Carbon, Nitrogen and Phosphorous may be emitted if product burns.

### Thermal decomposition products

Oxides of Carbon, Nitrogen and Phosphorous may be emitted if product burns.

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## Section 11 - TOXICOLOGICAL INFORMATION

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### 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

Phosphoric acid (7664-38-2)

Oral LD50 Rat 1530 mg/kg

Dermal LD50 Rabbit 2740 mg/kg

Inhalation LC50 Rat >850 mg/m<sup>3</sup> 1 h

Nitric acid (7697-37-2)

Inhalation LC50 Rat 67 ppm 4 h

#### 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.



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### **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.

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## Section 12 - ECOLOGICAL INFORMATION

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### **Component Analysis - Aquatic Toxicity**

No LOLI ecotoxicity data are available for this product's components

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## Section 13 - DISPOSAL CONSIDERATIONS

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### **Disposal Methods**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

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## Section 14 - TRANSPORT INFORMATION

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### **US DOT Information:**

**Shipping Name:** Corrosive Liquid, n.o.s, (Contains: Phosphoric Acid, Nitric Acid)

**Hazard Class:** 8

**UN/NA #:** 1760

**Packing Group:** II

**Required Label(s):** corrosive

### **TDG Information:**

**Shipping Name:** Corrosive Liquid, n.o.s, (Contains: Phosphoric Acid, Nitric Acid)

**Hazard Class:** 8

**UN#:** 1760

**Packing Group:** II

**Required Label(s):** corrosive





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### 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.

Phosphoric acid	7664-38-2
CERCLA:	5000 lb final RQ; 2270 kg final RQ
Nitric acid	7697-37-2
SARA 302:	1000 lb TPQ
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ; 454 kg final RQ
OSHA (safety):	500 lb TQ $\geq$ 94.5% by weight)
SARA 304:	1000 lb EPCRA RQ

All components are on the U.S. EPA TSCA Inventory List. Supplier(s) of proprietary component(s) have stated that their components appear on the Canadian DSL/NDSL.

#### U.S. State Regulations

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

Component	CAS	CA	MA	MN	NJ	PA
Phosphoric acid	7664-38-2	Yes	Yes	Yes	Yes	Yes
Nitric acid	7697-37-2	Yes	Yes	Yes	Yes	Yes

#### 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

Phosphoric acid	7664-38-2
	1 %



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Nitric acid	7697-37-2
	1 %

### Component Analysis - Inventory

Water (7732-18-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Phosphoric acid (7664-38-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Nitric acid (7697-37-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

## 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; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU -



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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; KECI - Korea Existing Chemicals Inventory; KECL - 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..