



Safety Data Sheet

Material Name: E-Pik 216

SDS ID: EPI-0228c

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

E-Pik 216

Product Use

Acid Activator.

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 #: Chemtrec #800-424-9300 (CCN7498)
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
Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Eye Irritation - Category 1
Specific Target Organ Toxicity - Single Exposure - Category 2
Specific Target Organ Toxicity - Repeated Exposure - Category 1

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause damage to organs.
Causes damage to organs through prolonged or repeated exposure.



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Precautionary Statement(s)

Prevention

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

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

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

Response

If exposed or concerned: Call a POISON CENTER or doctor/physician.

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 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

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Extremely large oral dosages may produce gastrointestinal disturbances. Calcium deficiency in blood may result in severe cases of ingestion.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	60-85
5329-14-6	Sulfamic acid	10-15
16872-11-0	Fluoroboric acid	5-8



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Section 4 - FIRST AID MEASURES

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin

For skin contact flush with large amounts of water while removing contaminated clothing. If irritation persists, get medical attention.

Eyes

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes.

Ingestion

If swallowed, give milk or water to dilute. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Unsuitable Extinguishing Media

Avoid using a direct stream of water.

Special Hazards Arising from the Chemical

Extinguish all nearby sources of ignition since flammable hydrogen gas will be liberated from contact with some metals.

Hazardous Combustion Products

Thermal decomposition liberates toxic, corrosive fumes of Nitrogen Oxide and Hydrogen Nitrate.

Fire Fighting Measures

Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this SDS.

Methods and Materials for Containment and Cleaning Up



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Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Sweep up material and place into a sealable, properly labeled container for disposal.

Environmental Precautions

Do not flush to sewer. Comply with regulations for spill reporting.

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 locked up.

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

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.

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 chemical goggles and face shield.

Skin Protection

The use of protective coveralls and long sleeved clothing is recommended for prolonged or repeated contact.

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 impervious gloves.



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Protective Materials

Eye wash fountain and emergency showers are recommended. Use good industrial hygiene practices in handling this material.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid	Physical State	Liquid
Odor	Characteristic	Color	Clear
Odor Threshold	Not available	pH	0 - 1
Melting Point	Not available	Boiling Point	212 °F
Freezing point	Not available	Evaporation Rate	Not available
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1.1 - 1.14
Water Solubility	Complete	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available		

Section 10 - STABILITY AND REACTIVITY

Reactivity

Will not occur.

Chemical Stability

This is a stable material.

Possibility of Hazardous Reactions

Will not occur.

Conditions to Avoid

Avoid extreme heat.

Incompatible Materials



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

Hazardous decomposition products

May liberate Boron Trifluoride and Hydrogen Fluoride. Thermal decomposition liberates toxic, corrosive fumes of Nitrogen Oxide and Hydrogen Nitrate.

Thermal decomposition products

May liberate Boron Trifluoride and Hydrogen Fluoride. Thermal decomposition liberates toxic, corrosive fumes of Nitrogen Oxide and Hydrogen Nitrate.

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

Sulfamic acid (5329-14-6)

Oral LD50 Rat 1450 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



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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

Sulfamic acid	5329-14-6
Fish:	LC50 96 h Pimephales promelas 14.2 mg/L [static]
Fluoroboric acid	16872-11-0
Fish:	LC50 96 h Brachydanio rerio 2600 mg/L [static]

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. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Do not allow this material to drain into sewers/water supplies.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: Fluoboric Acid, (Contains: Fluoboric Acid)

Hazard Class: 8

UN/NA #: UN1775

Packing Group: II

Required Label(s): Corrosive

TDG Information:

Shipping Name: Fluoboric Acid, (Contains: Fluoboric Acid)

Hazard Class: 8



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Packing Group: II

Required Label(s): Corrosive

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.

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
Sulfamic acid	5329-14-6	No	No	No	Yes	No
Fluoroboric acid	16872-11-0	No	No	No	Yes	No

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

Sulfamic acid	5329-14-6
	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

Sulfamic acid (5329-14-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX



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Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
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Fluoroboric acid (16872-11-0)

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: 2 Fire: 0 Reactivity: 0

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

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; 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; JP - Japan; Kow - Octanol/water partition coefficient; 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; 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; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.