



Safety Data Sheet

Material Name: E-Kleen 173

SDS ID: EPI-0229c

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

E-Kleen 173

Product Use

Soak and Electrocleaner.

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 1

Serious Eye Damage/Eye Irritation - Category 1

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Harmful if swallowed.

Harmful in contact with skin.



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Toxic if inhaled.
Causes severe skin burns and eye damage.

Precautionary Statement(s)

Prevention

Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
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.
Take off contaminated clothing and wash 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

This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. If swallowed can cause complete tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
1310-73-2	Sodium Hydroxide	21-25
6834-92-0	Sodium metasilicate	37-40
497-19-8	Disodium carbonate	30-35



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7601-54-9	Trisodium phosphate	2-3
73138-27-9	Amines, C12-14-tert-alkyl, ethoxylated	0.1-0.175

Section 4 - FIRST AID MEASURES

Inhalation

If inhaled, immediately remove the affected person to fresh air. If breathing is irregular or stopped, administer artificial respiration.

Skin

For skin contact flush with large amounts of water while removing contaminated clothing.

Eyes

Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists, get medical attention.

Ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Most Important Symptoms/Effects

Acute

Breathing dust, mist or spray of this product may cause damage to the upper respiratory tract and lung tissue which can cause chemical pneumonia, depending on the severity of exposure.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water spray, dry chemical, carbon dioxide.

Unsuitable Extinguishing Media

None known.

Hazardous Combustion Products

Decomposition of this product may emit oxides of nitrogen and carbon monoxide.

Fire Fighting Measures

Firefighters should wear full protective clothing including self contained breathing apparatus.

Section 6 - ACCIDENTAL RELEASE MEASURES



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Personal Precautions, Protective Equipment and Emergency Procedures

Isolate area. Keep unnecessary personnel away. Wear appropriate protective equipment during cleanup.

Methods and Materials for Containment and Cleaning Up

Wear appropriate protective equipment and clothing during clean-up. Material is corrosive; avoid contact during clean up. Avoid the generation of dusts during clean-up. Scoop up gross quantities of spilled material. Sweep up remaining material and dispose of contaminated material. After containment, it should be shoveled up or removed by vacuum truck (if liquid) to chemical waste area. Neutralize residue with dilute acid. Flush spill area with water followed by liberal coverage of Sodium Bicarbonate.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

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

Store locked up.

Keep container tightly closed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Sodium Hydroxide	1310-73-2
ACGIH:	2 mg/m3 Ceiling
NIOSH:	2 mg/m3 Ceiling
	10 mg/m3 IDLH
OSHA (US):	2 mg/m3 TWA
Mexico:	2 mg/m3 Ceiling

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.



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Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses with side shields or chemical goggles.

Skin Protection

Use of protective coveralls and long sleeves is recommended.

Respiratory Protection

If ventilation is not sufficient to effectively prevent buildup of vapors, wear appropriate respiratory protection.

Glove Recommendations

Wear impervious gloves.

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	White to Yellow Powder	Physical State	solid
Odor	Odorless	Color	White or yellow
Odor Threshold	Not available	pH	12 , conc: 0.05 % (solution)
Melting Point	Not available	Boiling Point	NA
Freezing point	NA	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)	NA
Water Solubility	Completely	Partition coefficient: n-octanol/water	Not available



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Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	VOC	0

Section 10 - STABILITY AND REACTIVITY

Reactivity

Contact with some metals, particularly magnesium, aluminum, zinc (galvanized) can rapidly generate hydrogen which can be explosive.

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Will not occur.

Conditions to Avoid

Avoid contact with acids.

Incompatible Materials

This product may react with strong acids.

Hazardous decomposition products

Thermal decomposition products

Upon thermal decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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:

Sodium Hydroxide (1310-73-2)
Dermal LD50 Rabbit 1350 mg/kg
Sodium metasilicate (6834-92-0)
Oral LD50 Rat 1153 mg/kg
Disodium carbonate (497-19-8)
Oral LD50 Rat 4090 mg/kg
Dermal LD50 Mouse 2210 mg/kg
Inhalation LC50 Rat 2300 mg/m³ 2 h
Trisodium phosphate (7601-54-9)
Oral LD50 Rat >2000 mg/kg



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Dermal LD50 Rabbit >300 mg/kg
Inhalation LC50 Rat >2.16 mg/L 1 h
Amines, C12-14-tert-alkyl, ethoxylated (73138-27-9)
Oral LD50 Rat 1850 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

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

Sodium Hydroxide	1310-73-2
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Fish:	LC50 96 h Oncorhynchus mykiss 45.4 mg/L [static]
Sodium metasilicate	6834-92-0
Fish:	LC50 96 h Brachydanio rerio 210 mg/L [semi-static]; LC50 96 h Brachydanio rerio 210 mg/L
Disodium carbonate	497-19-8
Fish:	LC50 96 h Lepomis macrochirus 300 mg/L [static]; LC50 96 h Pimephales promelas 310 - 1220 mg/L [static]
Invertebrate:	EC50 48 h Daphnia magna 265 mg/L IUCLID

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of waste material in accordance with all applicable Federal, State or provincial and local environmental regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: Sodium hydroxide, solid

Hazard Class: 8

UN/NA #: UN1823

Packing Group: II

Required Label(s): Corrosive

TDG Information:

Shipping Name: Sodium hydroxide, solid

Hazard Class: 8

UN#: UN1823

Packing Group: II

Required Label(s): Corrosive

Section 15 - REGULATORY INFORMATION



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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.

Sodium Hydroxide	1310-73-2
CERCLA:	1000 lb final RQ; 454 kg final RQ
Trisodium phosphate	7601-54-9
CERCLA:	5000 lb final RQ; 2270 kg final RQ

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
Sodium Hydroxide	1310-73-2	Yes	Yes	Yes	Yes	Yes
Trisodium phosphate	7601-54-9	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

Sodium Hydroxide	1310-73-2
	1 %
Sodium metasilicate	6834-92-0
	1 %
Disodium carbonate	497-19-8
	1 %

Component Analysis - Inventory

Sodium Hydroxide (1310-73-2)

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



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Sodium metasilicate (6834-92-0)

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

Disodium carbonate (497-19-8)

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

Trisodium phosphate (7601-54-9)

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	No

Amines, C12-14-tert-alkyl, ethoxylated (73138-27-9)

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

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 -



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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 - 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..