



Safety Data Sheet

Material Name: E-Kleen 190

SDS ID: EPI-0112c

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

E-Kleen 190

Product Use

Alkaline cleaner.

Manufacturer Information

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.

Skin Corrosion/Irritation - Category 1

Serious Eye Damage/Eye Irritation - Category 1

GHS Label Elements**Symbol(s)****Signal Word**

Danger

Hazard Statement(s)

Causes severe skin burns and eye damage

Precautionary Statement(s)**Prevention**



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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 locked up

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Other Hazards

Breathing mist or spray of this product may cause damage to the upper respiratory tract and lung tissue which can cause chemical pneumonia, depending upon severity of exposure. This product is destructive to skin and eye tissues on contact. Will cause severe burns. It may cause eye damage or blindness. If swallowed, can cause severe burns and complete tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	75-80
1344-09-8	Sodium silicate	1-2
Surfactant Blend	Surfactant Blend	5-8
141-43-5	Ethanolamine	8-10
34590-94-8	Dipropylene glycol monomethyl ether	3-5
64-02-8	Tetrasodium EDTA	0.1-0.5



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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

None known.

Fire Fighting Measures

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

Section 6 - ACCIDENTAL RELEASE MEASURES

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

Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Block any potential routes to water systems. Neutralize with dilute acid. Flush spill



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area with water followed by liberal coverage of sodium bicarbonate. Incinerate spent absorbent material in an approved incinerator.

Environmental Precautions

Do not allow to enter sewers or waterways.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

Store locked up

Keep container tightly closed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Ethanolamine	141-43-5
ACGIH:	3 ppm TWA
	6 ppm STEL
NIOSH:	3 ppmTWA; 8 mg/m ³ TWA
	6 ppmSTEL; 15 mg/m ³ STEL
	30 ppmIDLH
Europe:	1 ppmTWA; 2.5 mg/m ³ TWA
	Possibility of significant uptake through the skin
	3 ppm STEL; 7.6 mg/m ³ STEL
OSHA (US):	3 ppmTWA; 6 mg/m ³ TWA
Mexico:	3 ppmTWA LMPE-PPT; 8 mg/m ³ TWA LMPE-PPT
	6 ppmSTEL [LMPE-CT]; 15 mg/m ³ STEL [LMPE-CT]
Dipropylene glycol monomethyl ether	34590-94-8
ACGIH:	100 ppm TWA



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	150 ppm STEL
	Skin - potential significant contribution to overall exposure by the cutaneous route
NIOSH:	100 ppmTWA; 600 mg/m ³ TWA
	150 ppmSTEL; 900 mg/m ³ STEL
	Potential for dermal absorption
	600 ppmIDLH
Europe:	50 ppm TWA; 308 mg/m ³ TWA
	Possibility of significant uptake through the skin
OSHA (US):	100 ppmTWA; 600 mg/m ³ TWA
	prevent or reduce skin absorption
Mexico:	100 ppmTWA LMPE-PPT; 60 mg/m ³ TWA LMPE-PPT
	150 ppmSTEL [LMPE-CT]; 900 mg/m ³ STEL [LMPE-CT]
	Skin - potential for cutaneous absorption

Biological limit value

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 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.



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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear solution	Physical State	Liquid
Odor	Mild Sweet Odor	Color	Colorless
Odor Threshold	Not available	pH	11 - 12.49
Melting Point	Not available	Boiling Point	212 °F (100 °C)
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)	1.014 - 1.024
Water Solubility	Completely	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	VOC	0

Section 10 - STABILITY AND REACTIVITY

Reactivity

Explosive HYDROGEN GAS may be released if aqueous solutions of this material come into contact with reactive metals (IRON, ZINC, ALUMINUM).

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Will not occur.

Conditions to Avoid

Avoid contact with acids.



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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:

Water (7732-18-5)

Oral LD50Rat >90 mL/kg

Sodium silicate (1344-09-8)

Oral LD50Rat 1960 mg/kg

Ethanolamine (141-43-5)

Oral LD50Rat 1720 mg/kg

Dermal LD50Rabbit 1000 mg/kg

Dipropylene glycol monomethyl ether (34590-94-8)

Oral LD50Rat 5400 µL/kg

Dermal LD50Rabbit 9500 mg/kg

Tetrasodium EDTA (64-02-8)

Oral LD50Rat 1658 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.



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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 silicate	1344-09-8
Fish:	LC50 96 h Lepomis macrochirus 301 - 478 mg/L; LC50 96 h Brachydanio rerio 3185 mg/L [semi-static]
Ethanolamine	141-43-5
Fish:	LC50 96 h Pimephales promelas 227 mg/L [flow-through]; LC50 96 h Brachydanio rerio 3684 mg/L [static]; LC50 96 h Lepomis macrochirus 300 - 1000 mg/L [static]; LC50 96 h Oncorhynchus mykiss 114 - 196 mg/L [static]; LC50 96 h Oncorhynchus mykiss >200 mg/L [flow-through]
Algae:	EC50 72 h Desmodesmus subspicatus 15 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 65 mg/L IUCLID
Dipropylene glycol monomethyl ether	34590-94-8
Fish:	LC50 96 h Pimephales promelas >10000 mg/L [static]
Invertebrate:	LC50 48 h Daphnia magna 1919 mg/L IUCLID
Tetrasodium EDTA	64-02-8
Fish:	LC50 96 h Lepomis macrochirus 41 mg/L [static]; LC50 96 h Pimephales promelas 59.8 mg/L [static]
Algae:	EC50 72 h Desmodesmus subspicatus 1.01 mg/L IUCLID



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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:

No Classification assigned.

TDG Information:

No Classification assigned.

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
Ethanolamine	141-43-5	Yes	Yes	Yes	Yes	Yes
Dipropylene glycol monomethyl ether	34590-94-8	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.



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Ethanolamine	141-43-5
	1 %
Dipropylene glycol monomethyl ether	34590-94-8
	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

Sodium silicate (1344-09-8)

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

Ethanolamine (141-43-5)

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

Dipropylene glycol monomethyl ether (34590-94-8)

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

Tetrasodium EDTA (64-02-8)

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



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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.