SAFETY DATA SHEET

Revision date 27-Dec-2021 **Revision Number** 1

1. Identification

Product identifier

Product Name E-Kleen SR 196

Other means of identification

Product Code(s) EPI-0215C

UN number or ID number UN1824

Synonyms None

Details of the supplier of the safety data sheet

Manufacturer Address
Electrochemical Products Inc.
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 2
Serious eye damage/eye irritation	Category 1
Category 2	

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Danger

Hazard statements
Causes skin irritation
Causes serious eye damage

Appearance Clear Solution **Physical state** Liquid **Odor** Mild Sweet Odor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Keep container tightly closed
Wear protective gloves/eye protection/face protection

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 skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse
In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other information
May be harmful if swallowed.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	65-70	*
Sodium silicate	1344-09-8	7-10	*
Sodium hydroxide	1310-73-2	2-5	*
Ethylene glycol monophenyl ether	122-99-6	1-5	*
Dipropylene glycol monomethyl ether	34590-94-8	1-5	*
Surfactant	Trade secret	0.2-0.5	*

*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. Get medical attention immediately if symptoms occur.

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. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms	Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment for fire-fighters	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

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.
Methods for cleaning up	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Use with local exhaust ventilation. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m³	TWA: 2 mg/m³	IDLH: 10 mg/m³ Ceiling: 2 mg/m³
Dipropylene glycol monomethyl ether 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m³ (vacated) S* S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m³ STEL: 150 ppm STEL: 900 mg/m³

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.

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 Do not eat, drink or smoke when using this product. 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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear Solution
Color	colorless
Odor	Mild Sweet Odor

Property	Values	Remarks • Method
pH	12.6 - 13.6	None known
Melting point / freezing point	< 7.2 45	None known
Boiling point / boiling range	> 101 °C / 213.8 °F	None known
Flash point	No data available °F	None known
Relative density	1.07 - 1.09	None known
Water solubility	Complete	None known

Other information

VOC Content (%)	0

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Excessive heat.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity
No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	3,990.80 mg/kg
ATEmix (dermal)	11,142.80 mg/kg
ATEmix (inhalation-vapor)	1,216.80 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Sodium silicate 1344-09-8	= 1960 mg/kg (Rat)	-	-
Sodium hydroxide 1310-73-2	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Ethylene glycol monophenyl ether 122-99-6	= 1850 mg/kg (Rat)	= 5 mL/kg (Rabbit)	> 0.057 mg/L (Rat) 8 h
Dipropylene glycol monomethyl ether 34590-94-8	= 5.35 g/kg (Rat)	= 9500 mg/kg (Rabbit)	-
Surfactant	= 750 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects Respiratory system, Eyes, Skin, Central nervous system.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium silicate 1344-09-8	-	LC50: 301 - 478mg/L (96h, Lepomis macrochirus) LC50: =3185mg/L (96h, Brachydanio rerio)	-	-
Sodium hydroxide 1310-73-2	-	LC50: =45.4mg/L (96h, Oncorhynchus mykiss)	-	-
Ethylene glycol monophenyl ether 122-99-6	EC50: >500mg/L (72h, Desmodesmus subspicatus)	LC50: 337 - 352mg/L (96h, Pimephales promelas) LC50: =366mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)
Dipropylene glycol monomethyl ether 34590-94-8	-	LC50: >10000mg/L (96h, Pimephales promelas)	-	LC50: =1919mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Ethylene glycol monophenyl ether 122-99-6	1.13
Dipropylene glycol monomethyl ether 34590-94-8	-0.064

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Dispose of contents/containers in accordance with local regulations. Do not reuse empty containers.

14. Transport information

DOT

UN number or ID number UN1824
Proper shipping name Sodium hydroxide solution
Transport hazard class(es) 8

Packing group	II
Reportable Quantity (RQ)	(Sodium hydroxide: RQ (kg)= 454.00) Sodium hydroxide: RQ (lb)= 1000.00
DOT reportable quantity kg (calculated)	Sodium hydroxide: RQ (kg)= 18321.00
DOT Reportable Quantity lbs. (calculated)	Sodium hydroxide: RQ (lb)= 40355.00
Special Provisions	B2, IB2, N34, T7, TP2
DOT Marine Pollutant	NP
Description	UN1824, Sodium hydroxide solution, 8, II
Emergency Response Guide Number	154

TDG

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
Description	UN1824, Sodium hydroxide solution, 8, II

MEX

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
Technical Name	
Description	UN1824, Sodium hydroxide solution, 8, II

ICAO (air)

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
Description	UN1824, Sodium hydroxide solution, 8, II
Special Provisions	A3

IATA

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
Description	UN1824, Sodium hydroxide solution, 8, II
Special Provisions	A3, A803
ERG Code	8L

IMDG

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
EmS-No	F-A, S-B
Marine pollutant	NP
Description	UN1824, Sodium hydroxide solution, 8, II, (12.6°C c.c.)

RID

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
Classification code	C5
Description	UN1824, Sodium hydroxide solution, 8, II

ADR

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution

Transport hazard class(es)	8
Packing group	II
Classification code	C5
Tunnel restriction code	(E)
Description	UN1824, Sodium hydroxide solution, 8, II, (E)

ADN

UN number or ID number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	8
Packing group	II
Classification code	C5
Description	UN1824, Sodium hydroxide solution, 8, II
Equipment Requirements	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
Sodium silicate	1344-09-8	Present	Active
Trade secret	-	Present	Active
Trade secret	-	Present	Active
Trade secret	-	Present	Active
Sodium hydroxide	1310-73-2	Present	Active
Trade secret	-	Present	Active
Ethylene glycol monophenyl ether	122-99-6	Present	Active
Dipropylene glycol monomethyl ether	34590-94-8	Present	Active
Trade secret	-	Present	Active
Surfactant	-	Present	Active
Trade secret	-	Present	Active
Phosphoric acid	7664-38-2	Present	Active
Trade secret	-	Present	Active

DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Does not comply
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)
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Sodium hydroxide 1310-73-2	X	-	X
Trade secret	X	-	X
Ethylene glycol monophenyl ether 122-99-6	X	-	X
Dipropylene glycol monomethyl ether 34590-94-8	X	-	X
Phosphoric acid 7664-38-2	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	**Health hazards** 3	**Flammability** 3	**Instability** 0	**Special hazards** -
HMIS	**Health hazards** 3	**Flammability** 3	**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	27-Dec-2021
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