

SAFETY DATA SHEET



Revision date 18-Jan-2022

Revision Number 1

1. Identification

Product identifier

Product Name E-Kleen 102-E

Other means of identification

Product Code(s) EPI-0084C

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

| | |
|-----------------------------------|---------------------------|
| Acute toxicity - Oral | Category 4 |
| Skin corrosion/irritation | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 1 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Harmful if swallowed
Causes severe skin burns and eye damage



Appearance Slightly Amber viscous solution

Physical state Liquid

Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dusts or mists
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor
 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 ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 Immediately call a POISON CENTER or doctor
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
 Rinse mouth
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

| Chemical name | CAS No | Weight-% | Trade secret |
|------------------|-----------|----------|--------------|
| Water | 7732-18-5 | 50-80 | * |
| Sodium hydroxide | 1310-73-2 | 20-30 | * |
| Sodium gluconate | 527-07-1 | 1-5 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is

| | |
|---|--|
| | required. |
| Inhalation | Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. |
| 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. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention. |
| Ingestion | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. |
| Self-protection of the first aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8). |

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 Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. Fire-fighting measures

| | |
|---|--|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| 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 | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. |
| 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 Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|-------------------------------|------------------------------|--------------------------|--|
| Sodium hydroxide 1310-73-2 | Ceiling: 2 mg/m ³ | TWA: 2 mg/m ³ | IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³ |

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. Face protection shield.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Respiratory protection Use appropriate respiratory protection.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. 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.

9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|-----------------------|---------------------------------|
| Physical state | Liquid |
| Appearance | Slightly Amber viscous solution |
| Color | amber |
| Odor | Odorless |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|-------------------|-------------------------|
| pH | 12.0 - 14.0 | None known |
| Melting point / freezing point | < 7.2 °C / 45 °F | None known |
| Boiling point / boiling range | > 110 °C / 230 °F | None known |
| Flash point | No data available | None known |
| Relative density | 1.20 - 1.30 | None known |
| Water solubility | Completely | None known |
| <u>Other information</u> | | |
| 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 | Exposure to air or moisture over prolonged periods. |
| Incompatible materials | Acids. Bases. Oxidizing agent. |
| 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. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. |
| Eye contact | Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes. |
| Skin contact | Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. |
| Ingestion | Specific test data for the substance or mixture is not available. Causes burns. (based on |

components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing.

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) 1,373.70 mg/kg
ATEmix (dermal) 5,706.10 mg/kg

Unknown acute toxicity

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------------|---------------------|-------------------------|-----------------|
| Water 7732-18-5 | > 90 mL/kg (Rat) | - | - |
| Sodium hydroxide 1310-73-2 | = 325 mg/kg (Rat) | = 1350 mg/kg (Rabbit) | - |

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. Causes burns.

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

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.

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 hydroxide 1310-73-2 | - | LC50: =45.4mg/L (96h, Oncorhynchus mykiss) | - | - |

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging 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)= 2188.00
DOT Reportable Quantity lbs. (calculated) Sodium hydroxide: RQ (lb)= 4819.00
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

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 hydroxide | 1310-73-2 | Present | Active |
| Trade secret | - | Present | Active |
| Sodium gluconate | 527-07-1 | 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 does not contain any 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 |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

| | | | | |
|-------------|-------------------------|-----------------------|---------------------------|------------------------------|
| NFPA | Health hazards 3 | Flammability 0 | Instability 0 | Special hazards - |
| HMIS | Health hazards 3 | Flammability 0 | 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 18-Jan-2022

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