According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.20.2017

Electrode Cleaner

SECTION 1: Identification

Product identifier

Product name: Electrode Cleaner Product code: TW-2500-C

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory Chemicals Uses advised against: Not determined or not applicable. Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:	Supplier:
United States	United States
AquaPhoenix Scientific	ThermoWorks
860 Gitts Run Road	741 E Utah Valley Drive
Hanover	American Fork
PA 17331	UT 8400
(717) 632-1291	(800) 393-6434

Emergency telephone number: United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Corrosive to metals, category 1 Skin corrosion, category 1A Serious eye damage, category 1

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary statements:

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P390 Absorb spillage to prevent material damage.

P321 Specific treatment (see supplemental first aid instructions on this label).

P363 Wash contaminated clothing before reuse.

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P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338+P310 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/physician. P406 Store in corrosive resistant stainless steel container with a resistant inner liner.

P405 Store locked up.

P501 Dispose of contents and container as instructed in Section 13.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 9002-93-1	t-Octylphenoxpolyethoxy ethanol	<0.5
CAS number: 7647-01-0	Hydrochloric Acid	<2
CAS number: 7732-18-5	Water, purified	>97

SECTION 4: First aid measures

Additional Information: None

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Move exposed individual to fresh air Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:

Immediately remove all contaminated clothing Wash affected area with soap and water Immediately call a POISON CONTROL CENTER or seek medical attention

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes Remove contact lens(es) if able to do so during rinsing Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Immediately call a POISON CONTROL CENTER or seek medical attention Do not induce vomiting Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed Acute symptoms and effects:

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Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors May form corrosive mixtures with water

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Not determined or not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation Ensure air handling systems are operational Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders) Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Use only with adequate ventilation.

Avoid breathing mist or vapor.

Do not eat, drink, smoke or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.

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Protect from freezing and physical damage. Store in a cool, well-ventilated area. Store in corrosive resistant container with a resistant inner lining.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Hydrochloric Acid	7647-01-0	ACGIH TLV C 2.0 ppm
United States (OSHA)	Hydrochloric Acid	7647-01-0	OSHA PEL C 5.0 ppm
	Hydrochloric Acid	7647-01-0	OSHA PEL C 7.0 mg/m ³
NIOSH	Hydrochloric Acid	7647-01-0	NIOSH REL C 5.0 ppm
	Hydrochloric Acid	7647-01-0	NIOSH REL C 7.0 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of work. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Odorless
Odor threshold	Not available
рН	< 1

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Melting point/freezing point	Approx. 0°C
Initial boiling point/range	Approx. 100°C
Flash point (closed cup)	Not applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	Not available
Vapor density	Not available
Density	Not available
Relative density	Approx. 1
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	Not available
Dynamic viscosity	Not available
Kinematic viscosity	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data:

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Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data: No data available.

Substance data:

Name	Result
t-Octylphenoxpolyethoxy ethanol	Causes serious eye damage.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available. **Other information:** No data available.

SECTION 12: Ecological information

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Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available. Substance data: No data available.

Bioaccumulative potential

Product data: No data available. **Substance data:** No data available.

Mobility in soil

Product data: No data available. Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not Regulated.
UN proper shipping name	Not Regulated.
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not Regulated.
UN proper shipping name	Not Regulated.
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not Regulated.
UN proper shipping name	Not Regulated.
UN transport hazard class(es)	None
Packing group	None

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Environmental hazards	None
Special precautions for user	None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

7647-01-0	Hydrochloric Acid	Listed
9002-93-1	t-Octylphenoxpolyethoxy ethanol	Listed
7732-18-5	Water, purified	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances:

	7647-01-0	Hydrochloric Acid	Listed
SA	RA Section 313 tox	ic chemicals:	

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	7647-01-0	Hydrochloric Acid
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CERCLA:

	7647-01-0	Hydrochloric Acid	Listed	5000
PC	PA : Not determined			

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

7732-18-5	Water, purified	Not Listed
9002-93-1	t-Octylphenoxpolyethoxy ethanol	Not Listed
7647-01-0	Hydrochloric Acid	Listed

New Jersey Right to Know:

7732-18-5	Water, purified	Not Listed
9002-93-1	t-Octylphenoxpolyethoxy ethanol	Not Listed
7647-01-0	Hydrochloric Acid	Listed

New York Right to Know:

7732-18-5		Not Listed
9002-93-1		Not Listed

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7647-01-0	Hydrochloric Acid	Listed
Pennsylvania Rig	ht to Know:	
7732-18-5	Water, purified	Not Listed
9002-93-1	t-Octylphenoxpolyethoxy ethanol	Not Listed
7647-01-0	Hydrochloric Acid	Listed

California Proposition 65: Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 3-0-0 HMIS: 3-0-0 Initial preparation date: 04.20.2017

End of Safety Data Sheet