CASWELL INC

Safety Data Sheet
Electroless Copper Part A

SECTION 1: Identification

1.1 Product identifier

Product name	Electroless Copper Part A
Product number	ELCUA
Brand	Caswell

1.4 Supplier's details

Name	Caswell Inc
Address	7696 Route 31 Lyons, NY 14489 USA
Telephone	315 946 1213
Fax	315 946 4456
email	sales@caswellplating.com

1.5 Emergency phone number(s)

Office Hours (9-4ET): 315 946 1213
24 Hour: CHEMTEL US# 1-800-255-3924 Intl# +01-813-248-0585

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)
- Acute toxicity, oral (chapter 3.1), Cat. 4
- Acute toxicity, inhalation (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 2A
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word	**Warning**
Hazard statement(s)	
H302	Harmful if swallowed
H332	Harmful if inhaled
H315	Causes skin irritation
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P264	Wash … thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell,
P330	Rinse mouth.
P501	Dispose of contents/container to …
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P321	Specific treatment (see … on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P273	Avoid release to the environment.
P391	Collect spillage.

SECTION 3: Composition/information on ingredients

3.1 Substances

Hazardous components

1. WATER

Concentration	> 75 %
CAS no.	7732-18-5

2. TRIETHANOLAMINE

Concentration	5 - 10 %
CAS no.	102-71-6

3. Ethylenediaminetetraacetic acid tetrasodium salt

Concentration	1 - 5 %
CAS no.	64-02-8

4. DIETHANOLAMINE

Concentration	1 - 5 %
EC no.	203-868-0
CAS no.	111-42-2
Index no.	603-071-00-1

5. COPPER SULFATE PENTAHYDRATE

Concentration	1 - 5 %
CAS no.	7758-99-8

6. Sodium hydroxide liquid

Concentration	Not specified
EC no.	215-185-5
CAS no.	1310-73-2
Index no.	011-002-00-6

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Ingestion may be harmful or fatal. Symptoms include severe stomach and intestinal irritation, abdominal pain and vomiting of blood. Low blood pressure and shock may occur as a result of severe tissue damage.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to section 8

6.2 Environmental precautions
Do not allow to enter sewer or open water

6.3 Methods and materials for containment and cleaning up
SMALL SPILLS: Contain and absorb with absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Sodium hydroxide (CAS: 1310-73-2)
PEL (Inhalation): 2 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

2. Sodium hydroxide (CAS: 1310-73-2)
PEL (Inhalation): (C) 2 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

3. Sodium hydroxide (CAS: 1310-73-2)
REL (Inhalation): (C) 2 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Wear chemical resistant gloves and clothing.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the

specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
NIOSH/MSHA approved air purifying respirator with an organic vapor cartidge or canister may be permissable under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Blue Liquid
Odor	Amine
Odor threshold	
pH	alakline
Melting point/freezing point	
Initial boiling point and boiling range	100 deg C
Flash point	75 deg C CC
Evaporation rate	
Flammability (solid, gas)	None
Upper/lower flammability limits	
Vapor pressure	
Vapor density	
Relative density	1.1 g/cc
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	
Auto-ignition temperature	207 deg C
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

SECTION 10: Stability and reactivity

10.2 Chemical stability
Stable

10.4 Conditions to avoid
Excess Heat, Flame

10.5 Incompatible materials
Alkalis, ketones, organic anhydrides, organic halides, strong acids, aldehydes, strong oxidizers

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Triethanolamine:
Oral LD50 Rat: 4.92 mL/kg

Skin LD50 Rabbit: > 20 mL/kg
Eye Irritation: Mild, 10 mg (Rabbit)
Copper Sulfate:
Oral LD50 Human: 1.088 mg(hydrate/kg)
Oral LD50, Rat: 300mg/kg

Skin corrosion/irritation
Triethanolamine:
Skin LD50 Rabbit: > 20 mL/kg

Serious eye damage/irritation
Triethanolamine:
Eye Irritation: Mild, 10 mg (Rabbit)

Germ cell mutagenicity
Mutagenic effects have been observed on tests with human lymphocytes

Carcinogenicity
IARC-3: No

SECTION 12: Ecological information

Toxicity
Copper Sulfate is toxic to aquatic environments with long term effects.

SECTION 13: Disposal considerations

Disposal of the product
Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

Disposal of contaminated packaging
Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

New Jersey Right To Know Components

Common name: TRIETHANOLAMINE
CAS number: 102-71-6

Pennsylvania Right To Know Components
Chemical name: Ethanol, 2,2'-nitrilotris-
CAS number: 102-71-6

Massachusetts Right To Know Components
Chemical name: Diethanolamine
CAS number: 111-42-2

New Jersey Right To Know Components
Common name: DIETHANOLAMINE
CAS number: 111-42-2

Pennsylvania Right To Know Components
Chemical name: Ethanol, 2,2'-iminobis-
CAS number: 111-42-2

Massachusetts Right To Know Components
Chemical name: Sodium hydroxide
CAS number: 1310-73-2

New Jersey Right To Know Components
Common name: SODIUM HYDROXIDE
CAS number: 1310-73-2

Pennsylvania Right To Know Components
Chemical name: Sodium hydroxide
CAS number: 1310-73-2

HMIS Rating

Electroless Copper Part A	
HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

NFPA Rating

SECTION 16: Other information

16.1 Further information/disclaimer
DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own

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