

Safety Data Sheet
Electroless Copper Part B

SECTION 1: Identification

1.1 Product identifier

Product name	Electroless Copper Part B
Product number	ELCUB
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)

- Flammable liquids (chapter 2.6), Cat. 1
- Acute toxicity, oral (chapter 3.1), Cat. 1
- Acute toxicity, inhalation (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 3
- Eye damage/irritation (chapter 3.3), Cat. 2
- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 2
- Carcinogenicity (chapter 3.6), Cat. 1B
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictogram

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Signal word

Danger

Hazard statement(s)

H224 Extremely flammable liquid and vapor
H300 Fatal if swallowed
H332 Harmful if inhaled
H316 Causes mild skin irritation
H319 Causes serious eye irritation
H373 May cause damage to organs through prolonged or repeated exposure
H350 May cause cancer
H402 Harmful to aquatic life

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378 In case of fire: Use ... to extinguish.

P403+P235 Store in a well ventilated place. Keep cool.

P501 Dispose of contents/container to ...

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P321 Specific treatment (see ... on this label).

P330 Rinse mouth.

P405 Store locked up.

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.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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.

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

P314 Get medical advice/attention if you feel unwell.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P273 Avoid release to the environment.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Hazardous components

1. WATER

Concentration 71 %
CAS no. 7732-18-5

2. Methanol

Concentration 25 %
EC no. 200-659-6
CAS no. 67-56-1
Index no. 603-001-00-X

- Flammable liquids (chapter 2.6), Cat. 2
- Acute toxicity (chapter 3.1), Cat. 3
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 1

H225 Highly flammable liquid and vapor
H301 Toxic if swallowed
H311 Toxic in contact with skin
H331 Toxic if inhaled
H370 Causes damage to organs

3. Formaldehyde

Concentration 4 %
EC no. 200-001-8
CAS no. 50-00-0
Index no. 605-001-00-5

- Carcinogenicity (chapter 3.6), Cat. 2
- Acute toxicity (chapter 3.1), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 1B
- Sensitization, skin (chapter 3.4), Cat. 1

H301 Toxic if swallowed
H311 Toxic in contact with skin
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H331 Toxic if inhaled
H351 Suspected of causing cancer

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

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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. Typical fatal dose is 100-125/ml

4.2 Most important symptoms/effects, acute and delayed

Victim may improve and then decline again up to 30 hours later.

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

Remove all ignition sources. 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. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)

PEL-TWA: 200 ppm (ACGIH)

2. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)

Headache, Nausea, Dizziness, Eye damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Danger of cutaneous absorption

3. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)

STEL: 250 ppm (ACGIH)

4. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)

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PEL-TWA: 200 ppm, 325 mg/m³ (NIOSH)

5. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)

Potential for dermal absorption

6. METHYL ALCOHOL (CAS: 67-56-1 EC: 200-659-6)

PEL-TWA: 200 ppm, 260 mg/m³ (OSHA)

USA. Occupational Exposure Limits

(OSHA) - Table Z-1 Limits for Air

Contaminants

7. Methyl alcohol (CAS: 67-56-1)

PEL (Inhalation): 200 ppm (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

8. Methyl alcohol (CAS: 67-56-1)

PEL (Inhalation): 260 mg/m³ (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

9. Methyl alcohol (CAS: 67-56-1)

PEL (Inhalation): 200 ppm, (ST) 250 ppm, (C) 1000 ppm (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

10. Methyl alcohol (CAS: 67-56-1)

REL (Inhalation): 200 ppm, (ST) 250 ppm (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

11. Formaldehyde (CAS: 50-00-0 EC: 200-001-8)

PEL-C (Inhalation): 0.3 ppm (ACGIH)

USA. ACGIH Threshold Limit Values (TLV)

12. Formaldehyde (CAS: 50-00-0 EC: 200-001-8)

Remarks: Upper Respiratory Tract irritation, Eye irritation, Suspected human carcinogen, Sensitizer

13. Formaldehyde (CAS: 50-00-0 EC: 200-001-8)

PEL-TWA (Inhalation): 0.016 ppm (NIOSH)

USA. NIOSH Recommended Exposure Limits

14. Formaldehyde (CAS: 500-00-0 EC: 200-001-8)

Potential Occupational Carcinogen

See Appendix A

15. Formaldehyde (CAS: 50-00-0 EC: 200-001-8)

PEL-C (Inhalation): 0.1 ppm (NIOSH)

USA. NIOSH Recommended Exposure Limits

16. Formaldehyde (CAS: 50-00-0 EC: 200-001-8)

1910.1048: This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde OSHA specifically regulated carcinogen

17. Formaldehyde (CAS: 50-00-0 EC: 200-001-8)

0.75 ppm

OSHA Specifically Regulated Chemicals/Carcinogens

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

Pictograms



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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 cartridge or canister may be permissible 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.)	Colorless Liquid
Odor	Pungent
Odor threshold	
pH	Not Available
Melting point/freezing point	-98 deg C
Initial boiling point and boiling range	66 deg C
Flash point	12 deg C CC
Evaporation rate	5.9
Flammability (solid, gas)	Flammable
Upper/lower flammability limits	6.0-36
Vapor pressure	97 at 25 deg C mm Hg
Vapor density	1.1
Relative density	1.05 g/cc
Solubility(ies)	Miscible In Water
Partition coefficient: n-octanol/water	
Auto-ignition temperature	464 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

String Oxidizing Agents. May react with metallic aluminum to form hydrogen gas.

SECTION 11: Toxicological information

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Information on toxicological effects

Acute toxicity

Oral LD50 Woman: 36 mg/kg (formalin)

Carcinogenicity

Known Carcinogen

Summary of evaluation of the CMR properties

Formaldehyde is immediately dangerous to life or health. Acute exposure to vapors or mist at concentrations of 1 ppm cause membrane and respiratory tract irritation. Chronic exposure may promote the formation of squamous cell nasal carcinomas and may cause cirrhosis of the liver and chronic heart disease.

SECTION 12: Ecological information

Toxicity

Slightly toxic to aquatic life

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)

UN Number: UN1993

Class: 3

Packing Group: II

Proper Shipping Name: Flammable Liquids NOS (Methanol and Formaldehyde)

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

IMDG

UN Number: UN1993

Class: 3

Packing Group: II

EMS Number:

Proper Shipping Name: Flammable Liquids NOS (Methanol and Formaldehyde)

IATA

UN Number: UN1993

Class: 3

Packing Group: II

Proper Shipping Name: Flammable Liquids NOS (Methanol and Formaldehyde)

SECTION 15: Regulatory information

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

Massachusetts Right To Know Components

Chemical name: Methanol
CAS number: 67-56-1

New Jersey Right To Know Components

Common name: METHYL ALCOHOL
CAS number: 67-56-1

Pennsylvania Right To Know Components

Chemical name: Methanol
CAS number: 67-56-1

Massachusetts Right To Know Components

Chemical name: Formaldehyde
CAS number: 50-00-0

New Jersey Right To Know Components

Common name: FORMALDEHYDE
CAS number: 50-00-0

Pennsylvania Right To Know Components

Chemical name: Formaldehyde
CAS number: 50-00-0

California Prop. 65 components

Chemical name: Formaldehyde
CAS number: 50-00-0
01/01/1988 - cancer

HMIS Rating

Electroless Copper Part B	
HEALTH	* 2
FLAMMABILITY	3
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 investigation to determine the suitability of information for their particular purposes. In no event shall Caswell Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental,

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