according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

1 Identification

· Product identifier

· Trade name: Copper Gluconate 0.1M

· Product code: CG7001SS

· Recommended use and restriction on use

· Recommended use: Laboratory chemicals

· Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331 USA

Tel +1 (717)632-1291

Toll-Free: (866)632-1291 info@aquaphoenixsci.com

Emergency telephone number:

ChemTel

1-800-255-3924 (North America)

+1 (813)248-0585 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS07

· Signal word: Warning

· Hazard statements:

H317 May cause an allergic skin reaction.

· Precautionary statements:

P261 Avoid breathing mist, vapors, or spray.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves and eye protection. P302+P352 If on skin: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 1)

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:			
527-09-3 Copper di-D-gluconate / Copper gluconate	4.0%		
① Acute Tox. 4, H302; Skin Sens. 1B, H317			
7732-18-5 Water	96%		

Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- Most important symptoms and effects, both acute and delayed:

Allergic reactions

Gastric or intestinal disorders when ingested.

· Indication of any immediate medical attention and special treatment needed:

Medical supervision for at least 48 hours.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains Copper di-D-gluconate / Copper gluconate. May produce an allergic reaction.

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- For safety reasons unsuitable extinguishing agents: No relevant information available.
- · Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

(Cont'd. on page 3)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 2)

Wear protective equipment. Keep unprotected persons away.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation.

• Environmental precautions Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up

Wipe up small spills with paper towel and discard.

For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard. Send for recovery or disposal in suitable receptacles.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- Precautions for safe handling:

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizers, strong acids, strong bases.

- Further information about storage conditions: Keep containers tightly sealed.
- · Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Exposure controls
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- Engineering controls: Provide adequate ventilation.
- · Breathing equipment: Not required under normal conditions of use.
- · Protection of hands:

(Cont'd. on page 4)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 3)



Protective gloves

· Material of gloves

Nitrile rubber, NBR Butyl rubber, BR

Neoprene gloves

Natural rubber, NR

Sensibilization by the components in the glove materials is possible.

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No relevant information available.

· Risk management measures No relevant information available.

Information on basic physical a	nd chemical properties
Appearance:	
Form:	Liquid
Color:	Greenish blue
Odor:	Odorless
Odor threshold:	Not determined.
· pH-value:	Not determined.
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	100-101 °C (212-149.8 °F)
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
Oxidizing properties:	Non-oxidizing.
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
Density:	
Relative density:	Not determined.

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 4)

Vapor density: Not determined. Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic: Not determined. **Kinematic:** Not determined.

• Other information No relevant information available.

10 Stability and reactivity

- · Reactivity: No relevant information available.
- · Chemical stability: Stable under normal temperatures and pressures.
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Reacts with strong acids and alkali.

Reacts with strong oxidizing agents.

Toxic fumes may be released if heated above the decomposition point.

- · Conditions to avoid No relevant information available.
- · Incompatible materials Oxidizers, strong bases, strong acids
- · Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

Metal oxide smoke.

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 42725 mg/kg (rat)
Dermal LD50 53250 mg/kg (rat)

527-09-3 Copper di-D-gluconate / Copper gluconate

Oral LD50 1709 mg/kg (rat)
Dermal LD50 2130 mg/kg (rat)

- · Primary irritant effect:
- On the skin: Based on available data, the classification criteria are not met.
- · On the eve: Based on available data, the classification criteria are not met.
- Sensitization: Sensitization possible through skin contact.

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 5)

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): No relevant information available.
- · Repeated dose toxicity: May cause sensitization by skin contact.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- ·Toxicity
- · Aquatic toxicity

Harmful to aquatic life with long lasting effects.

527-09-3 Copper di-D-gluconate / Copper gluconate

EC50/48h | 0.67-0.8 mg/kg (daphnia)

EC50/72h 0.12-0.133 mg/kg (Pseudokirchneriella subcapitata)

- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- · Mobility in soil: No relevant information available.
- Ecotoxical effects:
- · Remark: Toxic for fish
- Additional ecological information
- · General notes:

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

· Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage

(Cont'd. on page 7)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 6)

and disposal for hazardous and nonhazardous wastes.

- Uncleaned packagings
- Recommendation: Disposal must be made according to official regulations.

14 Transport information	
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
· UN proper shipping name · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
· Transport hazard class(es)	
· DOT, ADR/RID/ADN, IMDG, IATA · Class	Not regulated.
· Packing group · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
· Environmental hazards	Not applicable.
· Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

(Cont'd. on page 8)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 02, 2020

Trade name: Copper Gluconate 0.1M

(Cont'd. of page 7)

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients listed on DSL or NDSL.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Acute Tox. 4: Acute toxicity - Category 4

Skin Sens. 1: Skin sensitisation - Category 1

Skin Sens. 1B: Skin sensitisation - Category 1B

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtel.com