

Material Safety Data Sheet (MSDS)

Product Name: Copper Gluconate Food Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance/Preparation and Company

Product Name: Copper Gluconate

Synonyms: Cupric Gluconate

Chemical Formula: $C_{12}H_{22}CuO_{14}$

Molecular Weight: 453.84 g/mol

Recommended Use: Nutritional supplement, food additive, pharmaceutical applications, and laboratory reagent.

2. Hazards Identification

Classification: Not classified as hazardous according to Regulation (EC) No. 1272/2008.

Hazard Statements:

- May cause irritation to eyes, skin, and respiratory tract.
- Ingestion of large amounts may cause gastrointestinal disturbances.

Precautionary Statements:

- Avoid contact with eyes, skin, and clothing.
- Avoid inhalation of dust.
- Wash thoroughly after handling.

Emergency Overview:

Light blue crystalline or powdery solid with no significant odor.

3. Composition / Information on Ingredients

Chemical Name: Copper Gluconate

CAS No.: 527-09-3

EINECS No.: 208-407-7

Purity: ≥ 98%

Grade: Food Grade

4. First Aid Measures

Inhalation: Move to fresh air. Seek medical attention if irritation persists.

Skin Contact: Wash with soap and water. Remove contaminated clothing.

Eye Contact: Rinse immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.

Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical attention if symptoms occur.

5. Fire Fighting Measures

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or foam.

Specific Hazards: May produce copper oxides and carbon oxides when heated to decomposition.

Protective Equipment: Firefighters should wear self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Personal Precautions: Avoid dust formation. Use protective equipment.

Environmental Precautions: Prevent entry into drains, sewers, or waterways.

Cleanup Methods: Sweep or vacuum up material and place in suitable containers for disposal.

7. Handling and Storage

Handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene practices.

Storage: Store in tightly closed containers in a cool, dry, and well-ventilated place. Protect from moisture and heat.

8. Exposure Controls / Personal Protection

Exposure Limits: No specific exposure limits established.

Engineering Controls: Use local exhaust ventilation to minimize dust levels.

Personal Protective Equipment:

- **Respiratory Protection:** Use dust mask if dust is generated.
 - **Eye Protection:** Safety goggles.
 - **Skin Protection:** Gloves and protective clothing.
 - **Hygiene Measures:** Wash hands after handling.
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9. Physical and Chemical Properties

Appearance: Light blue crystalline or powder

Odor: Odorless

Solubility: Soluble in water

pH (1% Solution): 5.0 – 7.0

Boiling Point: Not applicable

Melting Point: > 150°C (decomposes)

Specific Gravity: Approx. 2.4

Flash Point: Not applicable

Stability: Stable under normal storage and handling conditions.

10. Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Incompatible Materials: Strong oxidizing agents and acids.

Hazardous Decomposition Products: Copper oxides, carbon oxides.

Conditions to Avoid: Excessive heat, moisture, and dust formation.

11. Toxicological Information

Acute Toxicity:

- Oral (rat): LD₅₀ > 2000 mg/kg (low toxicity)

Potential Effects:

- **Eye Contact:** Irritation
- **Skin Contact:** Slight irritation possible
- **Inhalation:** Irritation of mucous membranes
- **Ingestion:** Large doses may cause nausea, vomiting, and abdominal pain

Carcinogenicity: Not classified as carcinogenic.

Mutagenicity: No data available.

Reproductive Toxicity: No data available.

12. Ecological Information

Ecotoxicity: Toxic to aquatic life at high concentrations.

Persistence and Degradability: Not readily biodegradable.

Bioaccumulative Potential: Low.

Mobility in Soil: Slightly mobile; may bind to soil particles.

Environmental Precautions: Avoid release into the environment.

13. Disposal Considerations

Dispose of in accordance with local, regional, and national regulations.

Avoid disposal into drains or watercourses.

Packaging should be cleaned and recycled where possible.

14. Transport Information (*Detailed*)

UN Number: Not regulated

UN Proper Shipping Name: Copper Gluconate

Transport Hazard Class: Non-hazardous material

Packing Group: Not applicable

Environmental Hazards: Not classified as marine pollutant

Transport by Road (ADR/RID):

- Not regulated as dangerous goods.
- No special precautions required.

Transport by Air (IATA):

- Not classified as dangerous goods.
- Packaging should prevent spillage and dust formation.

Transport by Sea (IMDG):

- Not classified as hazardous for marine transport.
- Keep away from strong oxidizers and moisture.

Transport Precautions:

- Ensure containers are tightly sealed.
- Store away from food and feed materials during transport.
- Avoid contact with strong acids or oxidizers.
- Handle with care to prevent mechanical damage or spillage.

15. Regulatory Information

Regulations:

- This product is not classified as hazardous under GHS (Globally Harmonized System).
- Food-grade product; conforms to applicable food additive standards (FCC/USP/EP).

16. Other Information

Disclaimer:

The information provided in this MSDS is believed to be accurate and reliable to the best of our knowledge at the date of revision. However, no warranty or guarantee is expressed or implied.

The user is responsible for ensuring that the product is used safely and in compliance with applicable laws and regulations.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.