



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com Website: www.wbcil.com

Section 1 - Chemical Product and Company Identification

MSDS Name: Copper Bisglycinate

Product Code : COGNL24

Company Identification:

WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +91 33 4025 1700

Fax: +91 33 2574 7410

Website: www.wbcil.com

Email: wbcil@wbcil.com

Emergency Telephone No.: +91 9874356081

Section 2 - Composition / Information on Ingredients

Chemical Name	:	Copper Bisglycinate
Synonyms	:	bis(glycinato)copper(II)
CAS Number	:	13479-54-4 (anhydrous) 14932-14-0 (cis, monohydrate)
Molecular Formula	:	C ₄ H ₈ CuN ₂ O ₄
Molecular Weight	:	211.66 gm/mol
Content	:	26.0%- 30.0% w/w (as Copper)

Section 3 - Hazards Identification

Statements of Hazard : Irritant
Acute Health Hazard : Irritant to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion, inhalation or skin absorption.

Chronic Health Hazard : Not Available

HMIS Rating : H:1 F:0 P:0

NFPA Rating : H:1 F:0 R:0

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

Acute Tox. 4 (100%)

Skin Irrit. 2 (99.17%)

Skin Sens. 1 (23.33%)

Eye Irrit. 2 (98.33%)

Aquatic Acute 1 (99.17%)

Hazard Statement(s):

H302 (100%) : Harmful if swallowed





Section 3 - Hazards Identification

H315 (99.17%) : Causes skin irritation

H317 (23.33%) : May cause an allergic skin reaction

H319 (98.33%) : Causes serious eye irritation

H400 (99.17%) : Very toxic to aquatic life

Precautionary Statement(s):

P261 : Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 : Wash hands [and ...] thoroughly after handling.

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

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

P273 : Avoid release to the environment

P280 : Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/

P302+P352 : IF ON SKIN: wash with plenty of water

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P321 : Specific treatment

P330 : Rinse mouth

P391 : Collect spillage.

P264+P265 : Wash hands [and ...] thoroughly after handling. Do not touch eyes

P301+P317 : IF SWALLOWED: Get medical help.

P332+P317 : If skin irritation occurs: Get medical help.

P337+P317 : If eye irritation persists: Get medical help

P362+P364 : Take off contaminated clothing and wash it before reuse.

P333+P317 : If skin irritation or rash occurs: Get medical help.

Section 4 - First Aid Measures

Eye Contact: Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

Skin Contact: Wash skin with soap and water. If irritation persists, seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

Inhalation: Move to a fresh air environment. Contact a physician if breathing becomes difficult.



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com

Website: www.wbcil.com

Section 5 - Fire-Fighting Measures

Flash Point:	Not Available
Explosion Limits:	Lower: Not Available Upper: Not Available
Auto Ignition Temperature:	Not Available
Extinguishing Media:	Carbon dioxide, dry chemical powder, alcohol-resistant foam or water spray.
Protective Equipment:	Wear self-contained respirator and fully protective impervious suit.
Specific Hazards:	May emit hazardous fumes under fire conditions.

Section 6 - Accidental Release Measures

Personal Protection:	Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls. Dispose of coveralls after use.
Environmental Protection:	Keep unprotected persons away. Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling:	Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.
Storage:	Store in a tightly closed container in a dry, well-ventilated place.
Sensitivities:	Not Available
Storage Temperature:	15 – 30°C



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com

Website: www.wbcil.com

Section 8 - Exposure Controls / Personal Protection

- Eyes** : Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash facility in your vicinity.
- Skin** : Wear impervious gloves and protective clothing.
- Respiratory** : Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

Exposure Limits:

Country	Source	Type	Value
USA	ACGIH	TWA	Not Available
USA	OSHA	STEL	Not Available
USA	OSHA	PEL	Not Available

Section 9 - Physical and Chemical Properties

Appearance Form	
Form	: Powder
Color	: Blue to light blue
Odour	: no data available
pH (of 1.0% aqueous solution)	: no data available
Melting point/freezing point	: 253.4°F
Initial boiling point and boiling range	: no data available
Sublimation Temperature:	: no data available
Density:	: no data available
Vapour pressure	: no data available
Vapour density	: no data available
Refractive Index	: no data available
Water solubility	: no data available
Decomposition temperature	: no data available
Viscosity	: no data available

Other safety information

no data available

Section 10 - Stability and Reactivity

Stability:	Stable under normal temperatures and pressures.
Incompatibility:	Strong oxidizing agents.
Conditions to Avoid:	Heat, Flame, Sparks, Other ignition sources.
Hazardous Decomposition Products:	Carbon oxides, Copper oxides.



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com

Website: www.wbcil.com

Section 11 - Toxicological Information

Acute Toxicity	: Oral: Copper bisglycinate exhibits moderate acute oral toxicity. Studies have reported an LD ₅₀ (lethal dose for 50% of the population) in rats to be approximately 2,000 mg/kg body weight. Dermal: Limited data are available on dermal toxicity. However, due to its irritant properties, prolonged skin contact should be avoided.
Skin Corrosion/Irritation	: Copper bisglycinate is classified as a skin irritant (Category 2). Exposure may cause redness, itching, and inflammation.
Serious Eye Damage/Irritation	: This compound is classified as causing serious eye irritation (Category 2). Contact can lead to redness, tearing, and discomfort.
Respiratory or Skin Sensitization	: There is limited evidence regarding respiratory sensitization. However, skin sensitization has been observed, indicating that repeated exposure may lead to allergic reactions in susceptible individuals.
Germ Cell Mutagenicity	: No data are available to suggest that copper bisglycinate is mutagenic.
Carcinogenicity	: There is no substantial evidence linking copper bisglycinate to carcinogenic effects.
Reproductive Toxicity	: Current data do not indicate reproductive toxicity associated with copper bisglycinate.
Specific Target Organ Toxicity (STOT)	: Single Exposure: May cause respiratory irritation upon inhalation of dust or aerosols. Repeated Exposure: Chronic exposure to high levels of copper compounds can lead to liver and kidney damage. However, specific data on copper bisglycinate are limited.



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com

Website: www.wbcil.com

Aspiration Hazard	:	Not applicable, as copper bisglycinate is not a liquid and does not pose an aspiration hazard.
Symptoms of Exposure	:	Ingestion of large amounts may result in gastrointestinal distress, including nausea, vomiting, and abdominal pain.
Delayed and Immediate Effects	:	Immediate effects include irritation at the site of contact. Delayed effects from chronic exposure may involve hepatic and renal complications due to copper accumulation.
RTECS Reference	:	no data available
Target Organs:	:	no data available
Toxicity Data:	:	no data available

Section 12 - Ecological Information

Toxicity:	:	<p>Aquatic Toxicity: Copper compounds are known to be toxic to aquatic organisms. While specific data on copper bisglycinate are limited, it is reasonable to infer that it may pose similar risks. Elevated copper levels can adversely affect fish, invertebrates, and algae, leading to reduced growth, reproductive issues, and mortality.</p> <p>Terrestrial Toxicity: Excessive copper concentrations in soil can be detrimental to terrestrial plants and soil microorganisms, potentially disrupting nutrient cycles and soil health. However, specific studies on copper bisglycinate's terrestrial toxicity are lacking.</p>
Persistence and degradability:	:	Copper is an element and does not degrade in the environment. The bisglycinate chelate may dissociate over time, releasing free copper ions, which can persist and accumulate in soils and sediments.



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com

Website: www.wbcil.com

Section 12 - Ecological Information

Bioaccumulative potential: : Copper has the potential to bioaccumulate in aquatic and terrestrial organisms. The chelated form, such as bisglycinate, may influence its bioavailability and accumulation patterns, but specific data are not available.

Mobility in soil : The mobility of copper in soil is influenced by factors such as pH, organic matter content, and soil composition. Chelated forms like copper bisglycinate may exhibit different mobility compared to inorganic copper salts, potentially enhancing its movement through soil profiles.

Other adverse effects : Copper can disrupt microbial communities in aquatic and terrestrial ecosystems, affecting nutrient cycling and ecosystem health. While copper bisglycinate's specific effects are not well-documented, caution is advised to prevent environmental contamination.

Environmental Precautions : **Prevent Release:** Avoid releasing copper bisglycinate into waterways, soil, or the environment.

Waste Management: Dispose of waste containing copper bisglycinate in accordance with local, regional, and national regulations to minimize environmental impact.

In summary, while copper bisglycinate serves beneficial roles in various applications, its potential ecological impacts necessitate careful handling and disposal to mitigate environmental risks.

Section 13 - Disposal Considerations

Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with Local/regional/national/international regulations.



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: wbcil@wbcil.com Website: www.wbcil.com

Section 14 - Transport Information

DOT	:	No data available
IATA	:	No data available
IMDG	:	No data available

Section 15 - Regulatory Information

United States:

Toxic Substance Control Act (TSCA): Not listed

Superfund Amendments and Reauthorization Act (SARA 302): Not listed Superfund

Amendments and Reauthorization Act (SARA 311/312): Not listed Superfund

Amendments and Reauthorization Act (SARA 313): Not listed

European Union:

European Inventory of Existing Chemical Substances (EINECS): Not Available

Hazard Codes: Not Available

Risk Statements: Not Available

Safety Statements: Not Available

Canada

Canadian Domestic Substances List (DSL): Not listed Canadian

Non-Domestic Substances List (NDSL): Not listed

Section 16 - Other Information

Disclaimer: This material safety data sheet is provided as an information resource only. WEST BENGAL CHEMICAL INDUSTRIES LIMITED believes the information contained herein is accurate and compiled from reliable sources. It is responsibility of the user to verify its validity. The buyer assumes responsibility of using and handling the product in accordance with federal, state, and local regulations.

Issue Date: March, 2023

Revision Date: April, 2025

Revision No.: 03