SAFETY DATA SHEET

GHK-Cu - 50 mg

GHK-Cu 50

Issue date	Revision	Format
11 November 2026	1.0	Lyophilized research material

IMPORTANT LIMITATION

Generic draft based on the stated chemical identity and nominal vial fill. Supplier identity, emergency telephone, lot-specific purity, excipients, salt form, analytical results and local regulatory determinations must be added or verified before commercial issue. This document does not replace the manufacturer or supplier SDS.

1. Identification

Product identifier	GHK-Cu - 50 mg
Product type	Copper-coordinated tripeptide
Recommended use	Qualified laboratory research and analytical work only
Restrictions on use	Not for human or veterinary administration; not for food, cosmetic, household, diagnostic or therapeutic use
Supplier / emergency contact	Use the supplier details and emergency number shown on the product label or purchase documentation; not provided for this generic draft

2. Hazard identification

GHS status	No definitive mixture or substance classification assigned in this generic sheet because complete test and formulation data are unavailable
Signal word / pictograms	Not assigned
Primary concerns	Bioactive material; unknown acute and chronic toxicity; dust may irritate eyes, skin and respiratory tract

PRECAUTION

Treat as potentially hazardous until supplier-specific classification is available. Avoid inhalation, ingestion, injection, mucous-membrane contact and environmental release. Use appropriate engineering controls and PPE.

3. Composition / information on ingredients

Component	CAS number	Nominal vial amount
GHK-Cu (copper tripeptide-1)	89030-95-5	50 mg nominal fill

Nominal fill is not a purity statement. Lyophilized products may contain counterions, water, bulking agents or residual synthesis materials. Use the batch COA and supplier SDS for exact composition.

4. First-aid measures

Inhalation	Move to fresh air. Keep at rest. Obtain medical attention if symptoms occur or exposure was significant.
Skin contact	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical advice for persistent irritation or suspected systemic exposure.
Eye contact	Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if easy to do. Obtain medical attention if irritation persists.
Ingestion	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Contact a poison center or physician promptly.
Needlestick / injection	Treat as an urgent medical exposure. Wash the site, do not squeeze aggressively, and obtain immediate medical evaluation with the label and SDS.

Most important symptoms/effects: Irritation is possible. Delayed or systemic pharmacologic effects cannot be excluded. Contains a copper complex; avoid ingestion and environmental release. Copper-specific hazards depend on bioavailability and formulation.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide, selected for the surrounding fire.
Specific hazards	Carbon oxides and nitrogen oxides; other irritating or toxic fumes may form. Copper-containing residues or fumes may remain after combustion.
Protective equipment	Firefighters should wear positive-pressure self-contained breathing apparatus and full protective clothing.

6. Accidental release measures

- Restrict access and ventilate the area. Avoid generating or breathing dust.
- Wear gloves, protective clothing and eye protection; use respiratory protection when dust cannot be controlled.
- Collect with a HEPA-filtered method or carefully dampen and absorb. Do not dry sweep or use compressed air.
- Place waste in a sealed, labeled container. Prevent release to drains, soil and surface water.

7. Handling and storage

Safe handling	Use in a controlled laboratory area. Avoid aerosols and dust. Do not eat, drink or apply cosmetics in the work area. Wash hands after handling.
Storage	Store tightly closed, dry and protected from light. Unless the supplier specifies otherwise, lyophilized research peptides are commonly stored frozen (about -20 C); NAD+ may be stored cold and dry per supplier instructions.
Incompatibilities	Strong oxidizers, heat, moisture and conditions that promote peptide or nucleotide degradation.
Inventory control	Retain the label, lot number, supplier SDS and COA. Record receipt, opening and storage conditions.

Reconstituted-solution stability is formulation- and buffer-dependent and is not established by this generic sheet. Follow validated laboratory procedures and supplier documentation.

8. Exposure controls / personal protection

Occupational limits	No OSHA PEL, ACGIH TLV or compound-specific occupational exposure limit identified for the stated research material.
Engineering controls	Use local exhaust ventilation, a ventilated enclosure or other containment for weighing and transfers that may generate dust.
Eye / face protection	Safety glasses with side shields; use chemical splash goggles when splash or aerosol exposure is possible.
Skin protection	Disposable nitrile gloves and laboratory coat. Change gloves after contamination; evaluate double-gloving for potent-compound work.
Respiratory protection	Use a fit-tested, approved particulate respirator when risk assessment shows ventilation is inadequate. Follow the respiratory-protection program.

9. Physical and chemical properties

Physical state	Lyophilized solid / powder
Appearance	Blue to blue-violet lyophilized powder
Odor	Expected to be odorless or nearly odorless; no test data supplied
pH / melting point / boiling point	Not determined for the supplied vial
Solubility	Formulation-dependent; many peptides and NAD+ salts are water soluble, but no quantitative value is assigned here
Flash point / flammability	Not determined; small quantity of organic solid may decompose or burn in a fire

Chemical identity	GHK-Cu (copper tripeptide-1)
CAS number	89030-95-5
Molecular formula	C14H22CuN6O4 (nominal complex)
Molecular weight	about 401.9 g/mol

10. Stability and reactivity

Reactivity	No hazardous polymerization expected under normal laboratory storage; compound-specific reactivity data are limited.
Chemical stability	Expected to be stable when sealed and stored as directed by the supplier. Heat, light, moisture and repeated temperature cycling may accelerate degradation.
Conditions to avoid	Heat, direct light, moisture, aerosol generation, strong acids/bases outside validated methods and incompatible oxidizers.
Hazardous decomposition products	Carbon oxides and nitrogen oxides; other irritating or toxic fumes may form. Copper-containing residues or fumes may remain after combustion.

11. Toxicological information

Likely routes	Inhalation of dust, eye or skin contact, ingestion, and accidental injection
Acute toxicity	Reliable LD50/LC50 data for the supplied research material are not available
Irritation / sensitization	Not adequately tested; irritation or sensitization cannot be excluded
Chronic / reproductive / carcinogenic effects	Insufficient data to classify the supplied material. No safe occupational dose is established.
Target-organ / systemic effects	Bioactivity is expected; unintended systemic effects may occur depending on identity, dose and route.

MEDICAL NOTE	Contains a copper complex; avoid ingestion and environmental release. Copper-specific hazards depend on bioavailability and formulation.

12. Ecological information

Ecotoxicity	No adequate product-specific aquatic or terrestrial toxicity data are available.
Persistence / degradability	Peptides may undergo biological and chemical degradation; rate and products depend on conditions. NAD+ is also degradable, but product-specific data are absent.
Mobility / bioaccumulation	Not determined.
Environmental precautions	Do not discharge to drains or the environment. Copper-containing products require particular care to prevent aquatic release.

13. Disposal considerations

- Dispose of contents, contaminated absorbents and PPE through an authorized laboratory-chemical waste route.
- Do not discard to sink, sewer or general trash unless a documented local waste determination permits it.
- Empty containers may retain residue. Deface labels only after decontamination or authorized disposal.
- Follow applicable federal, state/provincial and local requirements.

14. Transport information

UN number / proper shipping name	Not assigned in this generic assessment
Transport hazard class / packing group	Not assigned
Marine pollutant	Not determined
Special precautions	Protect from heat, moisture, breakage and unauthorized access. Verify the actual formulation and current carrier rules before shipment.

The conclusion above is based on the stated small-quantity research material and incomplete formulation data. A supplier-specific classification may differ.

15. Regulatory information

OSHA Hazard Communication	Classification cannot be finalized without supplier and mixture data. Treat as a chemical of unknown toxicity.
Research-use status	This sheet describes research material, not a finished pharmaceutical, food, cosmetic or medical device.
Inventory / reporting	CAS identity and reporting thresholds must be evaluated for the actual salt, counterion, formulation, quantity and jurisdiction.

16. Other information

Revision	1.0 - initial redesigned generic SDS draft
Identity notes	Copper coordination, protonation and hydration can change the reported formula and mass. The batch COA controls.
Reference basis	Cu-GHK / Copper tripeptide records; supplier batch COA/SDS; OSHA Hazard Communication Standard; UN Globally Harmonized System principles.
Disclaimer	Information is compiled in good faith for laboratory risk communication. Because manufacturer, formulation, purity and test data were not supplied, the user must verify suitability and compliance before reliance or distribution.

RESEARCH USE ONLY Not for human or veterinary administration. Not for therapeutic, diagnostic, food, cosmetic or household use. Handle only by trained personnel under an approved laboratory risk assessment.