

Safety Data Sheet

#35302650 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Copper (II) formate tetrahydrate	544-19-4	Cu(OOCH)2XH2O	10	23 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name Copper (II) formate tetrahydrate

CAS number 544-19-4

EC / EINECS number *Not applicable*

Chemical formula Cu(OOCH)2XH2O

Molecular weight 153.55

SMILES C(=O)[O-].C(=O)[O-].[Cu+2]

1.2 Relevant identified uses of the substance or mixture and uses advised against

For research and development. Laboratory chemicals. Manufacture of substances.

Not suitable for human or veterinary purposes

1.3 Details of the supplier of the safety data sheet

Molekula Limited

1 Millennium Way, Newton Aycliffe

Durham, DL5 6JW, United Kingdom

info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Acute Tox. 3; H301

Skin Irrit. 2; H315

Skin Sens. 1; H317

Eye Dam. 1; H318

Aquatic Acute 1; H400

Aquatic Chronic 1; H410

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H301	Toxic if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

CODE	PRECAUTIONARY STATEMENT
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P260	Do not breathe dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303+361	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse with water/shower
P305+351+338	IF IN EYES: Rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

2.3 Other hazards

Does not contain components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB). This product does not contain any known or suspected Endocrine disruptors.

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	Copper (II) formate tetrahydrate
CAS number	544-19-4
EC number	208-865-8
Concentration / purity	~100.0%
Classification according to Regulation (EC) No 1272/2008	Acute Tox. 3; H301 Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Hazard statements	H301, H315, H317, H318, H400, H410
Acute toxicity estimate (ATE)	Not reported
Impurities / stabilising additives	<i>Not applicable</i>

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. Continue to rinse for at least 15 minutes. Get medical advice/attention if you feel unwell.
Eye contact	IF IN EYES: rinse out with plenty of water. Remove contact lenses if present.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

No known symptoms or effects.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, carbon dioxide, dry powder or water fog

Unsuitable extinguishing media No limitation of extinguishing media given.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No specific recommendations. For personal protection, see section 8.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Absorb spillage with a suitable absorbent material.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Work under hood. Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs.

Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Store at ambient temperature. Store in a dry place. Store in a closed container.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection**8.1 Control parameters**

Occupational exposure limits (OEL / WEL) Not reported

DNEC/PNEC data Not reported

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Protective gloves.

Respiratory protection Full-face respirator
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection Not reported

Environmental exposure controls Avoid discharge into the environment, see section 6.2

SECTION 9

Physical & chemical properties**9.1 Information on basic physical and chemical properties**

Appearance / physical state Solid
DERIVED FROM: LITERATURE

Colour No data available

Odour Not known
DERIVED FROM: LITERATURE

Melting / freezing point 130°C
DERIVED FROM: LITERATURE

Boiling point No data available

Flammability Not applicable

Lower and upper explosion limit No data available

Flash point Not applicable

Auto-ignition temperature No data available

Decomposition temperature No data available

pH No data available

Acidity Neutral
DERIVED FROM: LITERATURE

Kinematic viscosity No data available

Solubility	<i>No data available</i>
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Partition coefficient n-octanol/water (log value)	<i>No data available</i>
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Vapour pressure	<i>No data available</i>
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Density (g/mL)	1.81 g/mL DERIVED FROM: LITERATURE
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Relative vapour density	<i>No data available</i>
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Particle characteristics	<i>No data available</i>
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9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No known reactivity based on data

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

None under prescribed storage conditions

10.4 Conditions to avoid

Heat, sparks, flames. Avoid moisture

10.5 Incompatible materials

Strong oxidising agents

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	Acute Toxicity Estimate (ATE): LD50 > 50 mg/kg < 300 mg/kg
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Skin corrosion / irritation	Causes skin irritation
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Eye corrosion / irritation	Causes serious eye damage
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Respiratory / skin sensitisation	May cause sensitisation by skin contact
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Carcinogenicity	<i>No data available</i>
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Mutagenicity	<i>No data available</i>
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Reproductive toxicity *No data available*

STOT (single / repeated exposure) *No data available*

Aspiration hazard Material is a solid.

11.2 Information on other hazards

Not considered an endocrine disruptor

SECTION 12

Ecological information

12.1 Toxicity

Chronic aquatic toxicity

12.2 Persistence and degradability

The degradability of the product is not known

12.3 Bioaccumulative potential

No data available on bioaccumulation

12.4 Mobility in soil

No additional information available

12.5 Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT criteria of REACH Annex XIII. This substance/mixture does not meet the vPvB criteria of REACH Annex XIII

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

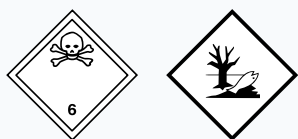
UN3288

14.2 UN proper shipping name

TOXIC SOLID, INORGANIC, N.O.S

14.3 Transport hazard class(es)

6.1



14.4 Packing group

III

14.5 Environmental hazards

Environmentally hazardous substance (mark required)

14.6 Special precautions for user

Special precautions for user None

Transport category 2

Tunnel code (E)

Packing instruction (ADR) P002

Packing instruction (IMDG) P002

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Substance-specific regulations (e.g. licences) No data available

REACH code Y110

ECHA notification Not applicable

15.2 Chemical safety assessment

No

SECTION 16

Other information

Revision notes / other information This version (v10) of the MSDS was created on 23.09.2026

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.