Cupric Hydroxide

SECTION 1: Identification

Product identifier

Product name: Cupric Hydroxide
Product code: CU1080

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory Chemicals
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:
United States
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
1-717-632-1291

Emergency telephone number:

United States
ChemTel Inc
+1(800)255-3924
+1(813)248-0585

SECTION 2: Hazard(s) identification

GHS classification:

Acute toxicity (oral), category 4
Acute toxicity (inhalation), category 2
Serious eye damage, category 1
Chronic aquatic hazard, category 1
Acute aquatic hazard, category 1

Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H302 Harmful if swallowed
H330 Fatal if inhaled
H318 Causes serious eye damage
H410 Very toxic to aquatic life with long lasting effects
H400 Very toxic to aquatic life

Precautionary statements:

P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P260 Do not breathe dust/fume/gas/mist/vapors/spray

P271 Use only outdoors or in a well-ventilated area
P284 Wear respiratory protection
P280 Wear protective gloves/protective clothing/eye protection/face protection
P273 Avoid release to the environment
P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P320 Specific treatment is urgent (see ... on this label)
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P391 Collect spillage
P405 Store locked up
P403+P233 Store in a well ventilated place. Keep container tightly closed
P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 20427-59-2	Cupric Hydroxide	100

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:
Not determined or not applicable.

After inhalation:
Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Move exposed individual to fresh air
Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:
Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention

After eye contact:
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, seek medical attention
Remove contact lens(es) if able to do so during rinsing
Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:
Rinse mouth thoroughly
Seek medical attention if irritation, discomfort, or vomiting persists
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell
Do not induce vomiting
Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Cupric Hydroxide

Acute symptoms and effects:
Not determined or not applicable.

Delayed symptoms and effects:
Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:
Not determined or not applicable.

Notes for the doctor:
Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:
Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:
Not determined or not applicable.

Specific hazards during fire-fighting:
Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:
Wear protective eye wear, gloves and clothing
Refer to Section 8

Special precautions:
Avoid inhaling gases, fumes, dust, mist, vapor and aerosols
Avoid contact with skin, eyes and clothing

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Ensure adequate ventilation
Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:
Should not be released into the environment
Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:
Wear protective eye wear, gloves and clothing

Reference to other sections:
Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:
Do not eat, drink, smoke or use personal products when handling chemical substances.
Avoid breathing mist or vapor.

Conditions for safe storage, including any incompatibilities:
Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Cupric Hydroxide

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Cupric Hydroxide	20427-59-2	OSHA PEL 1 mg/m3, as Cu (dusts and mists)
	Cupric Hydroxide	20427-59-2	OSHA PEL 0.1 mg/m3, as Cu (fume)
ACGIH	Cupric Hydroxide	20427-59-2	ACGIH TLV 1 mg/m3, as Cu, (dusts and mists)
	Cupric Hydroxide	20427-59-2	ACGIH TLV 0.1 mg/m3, as Cu,(fume)
NIOSH	Cupric Hydroxide	20427-59-2	NIOSH IDLH 100 mg/m3, as Cu (fume)

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Pale blue powder.
Odor	Odorless.
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	80°C
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.

Cupric Hydroxide

Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	3.71 g/cm³ at 20°C (68°F)
Solubilities	Slightly soluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
Does not react under normal conditions of use and storage.

Chemical stability:
Stable under normal conditions of use and storage.

Possibility of hazardous reactions:
None under normal conditions of use and storage.

Conditions to avoid:
Incompatible materials. Excess heat. Dust generation.

Incompatible materials:
Strong acids

Hazardous decomposition products:
Copper oxides.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Harmful if swallowed Fatal if inhaled

Product data: No data available.

Substance data:

Name	Route	Result
Cupric Hydroxide	dermal	LD50 Rat: 1000 mg/kg
	inhalation	LC50 Rabbit: >1303 mg/m3

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data: No data available.

Substance data: No data available.

Respiratory or skin sensitization

Cupric Hydroxide

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Carcinogenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
International Agency for Research on Cancer (IARC): None of the ingredients are listed.
National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Reproductive toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (single exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (repeated exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Aspiration toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Information on likely routes of exposure: No data available.
Symptoms related to the physical, chemical and toxicological characteristics: No data available.
Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity
Assessment: Very toxic to aquatic life
Product data: No data available.
Substance data:

Name	Result
Cupric Hydroxide	Oncorhynchus mykiss LC50: 64 ug/L

Chronic (long-term) toxicity
Product data: No data available.
Substance data: No data available.

Persistence and degradability
Product data: No data available.
Substance data: No data available.

Bioaccumulative potential

Cupric Hydroxide

Product data: No data available.
Substance data: No data available.

Mobility in soil

Product data: No data available.
Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	3288
UN proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (Copper dihydroxide)
UN transport hazard class(es)	6.1 
Packing group	II
Environmental hazards	None
Special precautions for user	None
Excepted quantities	1 g/1 ml
Passenger air/rail	25KG
Cargo aircraft only	100KG
Stowage category	A

International Maritime Dangerous Goods (IMDG)

UN number	3288
UN proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (Copper dihydroxide)
UN transport hazard class(es)	6.1 
Packing group	II
Environmental hazards	None
Special precautions for user	None
Excepted quantities	1g/1mL
Limited quantity	500g

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	3288
UN proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (Copper dihydroxide)
UN transport hazard class(es)	6.1 
Packing group	II

Cupric Hydroxide

Environmental hazards	None
Special precautions for user	None
ERG code	151
Excepted quantities	1g/1mL
Passenger and cargo	25KG
Cargo aircraft only	100KG
Limited quantity	500g

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

20427-59-2	Cupric Hydroxide	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

20427-59-2	Cupric Hydroxide	Listed

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know: Not determined.

New Jersey Right to Know: Not determined.

New York Right to Know: Not determined.

Pennsylvania Right to Know: Not determined.

California Proposition 65: Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 3-0-0

HMIS: 3-0-0

Initial preparation date: 02.09.2018

End of Safety Data Sheet