



## COPPER 8-HYDROXYQUINOLINATE

Safety Data Sheet AKC253.2

Date of issue: 08/02/2017 Version: 1.0

### SECTION 1: Identification

#### 1.1. Product identifier

Product name : COPPER 8-HYDROXYQUINOLINATE  
 Product code : AKC253.2  
 Product form : Substance  
 Physical state : Solid  
 Formula : C<sub>18</sub>H<sub>12</sub>CuN<sub>2</sub>O<sub>2</sub>  
 Synonyms : COPPER OXINATE  
 BIS(8-OXYQUINOLINE)COPPER  
 Chemical family : METAL COMPOUND

#### 1.2. Recommended use of the chemical and restrictions on use

Recommended use : Chemical intermediate  
 For research and industrial use only

#### 1.3. Details of the supplier of the safety data sheet

##### GELEST, INC.

11 East Steel Road  
 Morrisville, PA 19067

##### USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

[info@gelest.com](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Acute toxicity (oral) Category 4	H302
Serious eye damage/eye irritation Category 2	H319
Specific target organ toxicity (single exposure) Category 2	H371
Hazardous to the aquatic environment - Acute Hazard Category 1	H400

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

GHS08

GHS09

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H302 - Harmful if swallowed  
 H319 - Causes serious eye irritation  
 H371 - May cause damage to organs  
 H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) :

P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P260 - Do not breathe dust  
 P264 - Wash hands thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P273 - Avoid release to the environment  
 P330 - Rinse mouth  
 P301+P312 - If swallowed: Call a doctor if you feel unwell  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P337+P313 - If eye irritation persists: Get medical advice/attention  
 P391 - Collect spillage  
 P405 - Store locked up  
 P501 - Dispose of contents/container to licensed waste disposal facility.

# COPPER 8-HYDROXYQUINOLINATE

## Safety Data Sheet

### 2.3. Hazards not otherwise classified (HNOC)

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Mono-constituent  
Name : COPPER 8-HYDROXYQUINOLINATE  
CAS No : 10380-28-6

Name	Product identifier	%	GHS-US classification
Copper(II) 8-hydroxyquinolate	(CAS No) 10380-28-6	95 - 100	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 STOT SE 2, H371 Aquatic Acute 1, H400

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

### 4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : May cause damage to organs.

Symptoms/effects after inhalation : Inhalation of dust or particulates may irritate the respiratory tract or cause congestion of nasal mucous membranes.

Symptoms/effects after skin contact : May cause skin irritation. May be harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye irritation. May cause conjunctivitis or ulceration.

Symptoms/effects after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

### 5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

# COPPER 8-HYDROXYQUINOLINATE

## Safety Data Sheet

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Collect spillage. Sweep or shovel spills into appropriate container for disposal.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store locked up.

Incompatible materials : Oxidizing agent.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> as Cu
-------	--------------------------------	---------------------------

### 8.2. Exposure controls

Appropriate engineering controls : Provide local exhaust or general room ventilation.

Personal protective equipment : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection : Neoprene or nitrile rubber gloves.

Eye protection : Chemical goggles. Contact lenses should not be worn.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Powder.

Molecular mass : 351.85 g/mol

Color : Yellow-green.

Odor : No data available

Odor threshold : No data available

Refractive index : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : 270 °C with decomposition

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : < 0.1 mm Hg @ 25°C

Relative vapor density at 20 °C : No data available

Relative density : 1.68

VOC content : < 1 %

# COPPER 8-HYDROXYQUINOLINATE

## Safety Data Sheet

Solubility	: Insoluble in water. Organic solvent: Soluble: warm acetic acid; slightly soluble: chloroform
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Organic vapors. Copper oxide fumes.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

#### COPPER 8-HYDROXYQUINOLINATE (10380-28-6)

ATE US (oral)	500 mg/kg body weight
---------------	-----------------------

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

LD50 oral rat	500 mg/kg 3,900-4,700 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 0.94 mg/l/4h
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

This product contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

IARC group	3 - Not classifiable
------------	----------------------

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause damage to organs.

Specific target organ toxicity – repeated exposure	: Not classified
--	------------------

Aspiration hazard	: Not classified
-------------------	------------------

Potential Adverse human health effects and symptoms	: Chronic Toxicity: An experimental tumorigen; mutagenic data.
---	--

Symptoms/effects after inhalation	: Inhalation of dust or particulates may irritate the respiratory tract or cause congestion of nasal mucous membranes.
-----------------------------------	--

Symptoms/effects after skin contact	: May cause skin irritation. May be harmful in contact with skin.
-------------------------------------	---

Symptoms/effects after eye contact	: Causes serious eye irritation. May cause conjunctivitis or ulceration.
------------------------------------	--

# COPPER 8-HYDROXYQUINOLINATE

## Safety Data Sheet

Symptoms/effects after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

ErC50 (algae)	0.0762 mg/l (Green Algae)
---------------	---------------------------

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No known effects from this product.

GWPmix comment : No known effects from this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

#### 14.1. UN number

UN-No.(DOT) : 3077

DOT NA no. UN3077

#### 14.2. UN proper shipping name

Transport document description : UN3077 Environmentally hazardous substances, solid, n.o.s. (COPPER 8-HYDROXYQUINOLINATE), 9, III

Proper Shipping Name (DOT) : Environmentally hazardous substances, solid, n.o.s. (COPPER 8-HYDROXYQUINOLINATE)

Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Packing group (DOT) : III - Minor Danger

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : Yes

Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 213

DOT Packaging Bulk (49 CFR 173.xxx) : 240

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Symbols : G - Identifies PSN requiring a technical name

#### 14.3. Additional information

Emergency Response Guide (ERG) Number : 171

Other information : No supplementary information available.

# COPPER 8-HYDROXYQUINOLINATE

## Safety Data Sheet

### Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

### Air transport

DOT Quantity Limitations Passenger aircraft/rail : No limit  
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : No limit  
CFR 175.75)

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

WHMIS Classification : Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

### EU-Regulations

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### National regulations

#### Copper(II) 8-hydroxyquinolate (10380-28-6)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

Full text of H-phrases::

H302	Harmful if swallowed
H319	Causes serious eye irritation
H371	May cause damage to organs
H400	Very toxic to aquatic life

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

# COPPER 8-HYDROXYQUINOLINATE

## Safety Data Sheet

---

Flammability	: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Date of issue: 08/02/2017      Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

*The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.*

© 2017 Gelest Inc. Morrisville, PA 19067

