



Copper Hydroxide Phosphate		Pricing >
Linear Formula	$\text{Cu}_2(\text{OH})\text{PO}_4$	
Pubchem CID	166635	
MDL Number	MFCD00075296	
EC No.	235-285-2	
IUPAC Name	dicopper hydroxide phosphate	
Beilstein/Reaxys No.	N/A	
SMILES	F[Al-2](F)(F)(F).[Cs+].[Cs+]	
Inchl Identifier	InChI=1S/2Cu.H3O4P.H2O/c;;1-5(2,3)4;/h;;(H3,1,2,3,4);1H2/q2*+2;;/p-4	
Inchl Key	WCMHCPWEQCWRSR-UHFFFAOYSA-J	
Signal Word	Warning	
Hazard Statements	H302-H410	
Hazard Codes	Xi, N	
Precautionary Statements	P264-P270-P273-P301+P312+P330-P391-P501	
Risk Codes	36/37/38	
Safety Statements	26	
RTECS Number	N/A	
Transport Information	UN 3077 9/PG III	
WGK Germany	3	
GHS Pictograms	GHS07 Exclamation Point  GHS09 Environment 	

[Create Printable PDF](#)

SAFETY DATA SHEET

Date Accessed: 05/07/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #12158-74-6

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 4), H302
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 1), H410
For the full text of the H-Statements mentioned in this Section, see Section 16.
GHS Label elements, including precautionary statements
Pictogram



Signal word Warning
Hazard statement(s)
H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant.
Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Molecular weight : 239.07 g/mol

CAS-No. : 12158-74-6

EC-No. : 235-285-2

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special hazards arising from the substance or mixture
Oxides of phosphorus, Copper oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

The product itself does not burn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic. Keep in a dry place.

Storage class (TRGS 510): 11: Combustible Solids

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Form: powder

Odour No data available

Odour Threshold No data available

pH No data available

Melting point/freezing point

No data available

Initial boiling point and boiling range

No data available

Flash point No data available

Evaporation rate No data available

Flammability (solid, gas)
No data available
Upper/lower flammability or explosive limits
No data available
Vapour pressure No data available
Vapour density No data available
Relative density No data available
Water solubility No data available
Partition coefficient:
n-octanol/water
No data available
Auto-ignition temperature
No data available
Decomposition
temperature
No data available
Viscosity No data available
Explosive properties No data available
Oxidizing properties No data available
Other safety information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
No data available
Conditions to avoid
No data available
Incompatible materials
No data available
Hazardous decomposition products
Hazardous decomposition products formed under fire
conditions. - Oxides of phosphorus,
Copper oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
LD50 Oral - Mouse - female - > 300 - < 2,000 mg/kg
(OECD Test Guideline 423) absorption
LC50 Inhalation - Rat - male and female - 4 h - > 5.09
mg/l
(OECD Test Guideline 436)

LD50 Dermal - Guinea pig - male and female - >
2,000 mg/kg
(OECD Test Guideline 402)
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)
Respiratory or skin sensitisation
Maximisation Test - Guinea pig
Result: negative
(OECD Test Guideline 406)
Germ cell mutagenicity reverse mutation assay
Salmonella typhimurium
Result: negative
In vitro mammalian cell gene mutation test
Mouse lymphoma test
Result: negative
Carcinogenicity
IARC: No component of this product present at levels
greater than or equal to 0.1% is
identified as probable, possible or confirmed human
carcinogen by IARC.
NTP: No component of this product present at levels
greater than or equal to 0.1% is
identified as a known or anticipated carcinogen by
NTP.
OSHA: No component of this product present at levels
greater than or equal to 0.1% is
on OSHA's list of regulated carcinogens.
Reproductive toxicity
Specific target organ toxicity - single exposure
Specific target organ toxicity - repeated exposure
Aspiration hazard
Additional Information
RTECS: Not available
After absorption:
We have no description of any toxic symptoms.
Cannot be excluded:
Metal-fume fever after inhalation of large quantities.
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene
and safety practice.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Toxicity to fish LC50 - Fish - 0.0662 mg/l
Remarks: (ECHA)
NOEC - Fish - 0.0287 mg/l

Remarks: (ECHA)
Toxicity to daphnia
and other aquatic
invertebrates
EC50 - Daphnia magna (Water flea) - 17 mg/l - 48 h
(OECD Test Guideline 202)
Persistence and degradability
Bioaccumulative potential
Mobility in soil
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical
safety assessment not required/not
conducted
Other adverse effects
An environmental hazard cannot be excluded in the
event of unprofessional handling or
disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a
licensed disposal company. Contact a
licensed professional waste disposal service to
dispose of this material.
Contaminated packaging
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
UN number: 3077 Class: 9 Packing group: III EMS-
No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY
HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Dicopper hydroxide phosphate)
Marine pollutant : yes
IATA
UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous
substance, solid, n.o.s. (Dicopper
hydroxide phosphate)
Further information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code
2.10.3) for single packagings and
combination packagings containing inner packagings

with Dangerous Goods > 5L for liquids
or > 5kg for solids.

SECTION 15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Dicopper hydroxide phosphate

CAS-No.

12158-74-6

Revision Date

2015-07-08

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Dicopper hydroxide phosphate CAS-No.

12158-74-6

Revision Date

2015-07-08

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
