

MATERIAL SAFETY DATA SHEET

1. Chemical Product Identification

Product Name: Meteor WP (770g/kg copper hydroxide WP)

Molecular Formula: Cu(OH)₂

Molecular Weight: 97.6

Chemical Name: copper hydroxide

CAS No.: 20427-59-2

2. Composition / Information On Ingredients

Composition	CAS No.	Content
Copper hydroxide	20427-59-2	770g/kg

3. Hazards Identification

Component	Symptom	R phrases
Copper hydroxide	T	R 36/37/38

More important danger for the man:

Inhalation: slightly toxic by inhalation. Excessive exposure may cause cough, mucous production, shortness of breath, reflecting metal fume fever.

Eye irritation: may cause severe irritation with possible reversible corneal opacification.

Skin irritation: non-irritant. Excessive exposure, especially if prolonged, may produce skin irritation. Repeated exposure may cause allergic contact dermatitis.

Skin absorption: not a skin absorption hazard.

Ingestion: slightly toxic by oral exposure. This material may produce toxicity if ingested in large quantities. Symptoms of over-exposure may include nausea and vomiting, abdominal pain, and central nervous system depression, which, if severe enough, may lead to death.

Chronic: low chronic toxicity unless excessive exposure is encountered. Excessive to copper by inhalation may result in irritation of the upper respiratory tract which, if severe, may lead to perforation of the nasal septum after long periods of exposure.

Dangers for the environment

The degree of mobility of copper in the environment depends upon the pH of ambient soils and waters.

The higher the acidity, the more soluble copper salts are and, hence, the more mobile. Partitioning of copper into air is negligible due to the low vapor pressure of copper salts.

Physical-chemical dangers: none

4. First Aid Measures

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Skin: remove contaminated clothing and shoes. Wash with plenty of soap and water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention.

Eyes: hold eyelids open and flush with water, until no evidence of chemical remains (at least 15- 20 minutes). Get medical attention.

Inhalation: remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. Get medical attention immediately.

Ingestion: drink promptly a large quantity of milk, egg white, gelatin solution or if these are not available, large quantities of water. Unless extensive vomiting has occurred, empty the stomach by gastric lavage with water, milk, sodium bicarbonate solution of a 0.1 % solution of potassium ferrocyanide.

5. Fire-Fighting Measures Extinguishing media

To be used: dry chemical, foam, carbon dioxide or water spray.

Don't use: not applicable **Particular risk:** none

Measures of personal protection: Wear protective clothing and self-contained breathing apparatus.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

6. Accidental Release Measures Personal cautions

Wear protective clothing and self-contained breathing apparatus when handling accidental release.

Keep other person out of the release place.

Cleaning methods

Land spill: sweep up and place in suitable (fiberboard) containers for later disposal.

Water spill: if feasible, copper may be precipitated/ ultrafiltrated with caustics or other chemicals and resulting sludge disposed of in a chemical landfill.

Environmental cautions

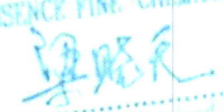
EX: prevent the contamination of the floor and of beds of water.

7. Handling And Storage

Handling: store in a clean, dry area. Do not store near feed, food or within the reach of children. **Storage:** store below 35 °C' (95F). Average shelf life under proper storage conditions is 2 years. **Technical protective measures:** applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks. Wash thoroughly after working and do not take clothing of work to home.

Fire and explosion protection: negligible fire bayard when evnosed to heat or flame

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5. Exposure Controls / Personal Protection

TWA: 1 mg/nv

Personal protective equipment

Respiratory protection: in enclosed spaces where the TWA may be exceeded, wear dust or mist respirator

Protective gloves: rubber gloves

Eye protection: wear protective eyewear to prevent contact with this substance.

Industrial hygiene: applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks.

6. Physical And Chemical

Properties Melting point: not determined

Bulk density: 0.45 g/cnr

Water solubility: **can be soluble**

Other solubilities: **low soluble in solvents**

Ph value: 7.0-9.0

Flash point: none

Ignition temperature: inflammable

7. Stability And Reactivity

Conditions to avoid: this material is stable under normal conditions.

Products to avoid: **none known. Page 3 of 4**

Thermal decomposition: not applicable

Hazardous decomposition products: decomposes to CuO and H₂O above 140F.

Hazardous reaction: none

8. Toxicological Information

Contact with the skin: considered a non-irritant to the skin of a rabbit. Many copper salts cause itching, eczema and, rarely, sensitization reactions in previously exposed persons.

Contact with the eyes: may cause severe irritation with possible reversible comeal opacification.

Inhalation: acute inhalation LC50 = 1.3 mg/L (rat- 4 hour). May cause irritation of the mucous membranes. Exposure to copper fume may result in metallic taste, nausea,

vomiting, and metal fume fever with chills, fever, aching muscles, dry throat and headache.

Ingestion: oral LD50 =1346 mg/kg. Ingestion of large doses of copper salts may result progressively in irritation of the gastrointestinal tract, nausea, vomiting, salivation, gastric pain,

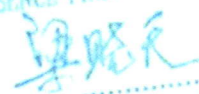
hemorrhagic

Sharp toxicity: not applicable

Effects for chronic

Repeated ingestion of copper salts may results in anemia, liver , and kidney damag.' Cnrociic inhalation exposure may cause a metallic taste in the mouth, irritation of the upper respiratory

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such as the nasal mucosa that may progress to perforation of the nasal septum. Chronic cough may also occur. Copper hydroxide which comprises 53.8% of this product governs the toxicity of the product. The remaining components have low to negligible toxicity.

Sensitisation: not applicable

Other data: copper-intolerant individuals should not be exposed to this material. No additional information is available on whether overexposure to this material would aggravate other existing special medical conditions.

4. Ecological And Ecotoxicological Information

Aquatic LC50:	Bluegill	180000 ppb
	Fathead minnow	23 ppb
	Rainbow trout	ppb 6.5 ppb -
	Daphnia magna	340 mg/kg >
Avian-acute oral LC50	Bobwhite quail	10000 ppm
Avian-8-day dietary LD 50	Bob white quail	>10000 ppm
Avian-8- day dietary LD50	Mallard duck	

5. Disposal Considerations

Product: comply with appropriate disposal regulations. Landfill solids at permitted sites. Use registered transporters.

6. Transport Information

GGVSee/IMDG-Cod.: 6221 UN No.:

N/A

Class NO. N/A

Packing Group:

ICAO/IATA-DGR: not

applicable **GGVE/GGVS:** not

applicable **RID/ADR:** not

applicable **ADNR:** not applicable

7. Regulatory Information Symbol: T R

phrases: 36/37/38 S **phrases:**

2/9/13/20/21/23/24/25/36/39

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