

**SAFETY DATA SHEET**

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Date issued: 19. 04. 1995

Product name: **CUPRABLAU Z WP**


Date revised: December 2011

Revised version No.: 11

1. Chemical product and supplier identification:

1.1.	Product identification:	CUPRABLAU Z WP	Identification No.: P010235
1.2.	Product use:	Plant Protective Product: Cupric contact fungicide	
1.3.	Supplier identification (manufacturer, importer, distributor):		
1.3.1.	Supplier name:	CINKARNA CELJE, Inc.	
1.3.2.	Supplier address:	Kidričeva 26, 3001 CELJE – SLOVENIA, +386 3 427 60 00	
1.3.3.	Contact person:	E – mail: vesna.gabersek@cinkarna.si	
1.3.4.	Emergency number:	+386 3 427 61 12 (Cinkarna Celje)	

2. Hazard identification:

2.1.	Hazards:	Xn, N	R: 20-36-37-41-43-50/53
2.2.	Specific hazards:	Soluble in dilute acids /forming Cu(II) salts/ and in ammonium hydroxide /forming a complex ion/.	
2.3.	Symptoms after exposure: - Inhalation: - Skin contact: - Contact with eyes: - Ingestion:	Harmful. May cause sensitization. Damage to eyes. May cause nausea and vomiting.	
2.4.	Danger to environment:	 Toxic to aquatic organisms.	

3. Composition with information on hazardous ingredients:

3.1.	Common name:	CUPRABLAU Z WP
3.2.	Hazardous ingredients:	Copper oxychloride

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Chemical name	Registration number	Index No.	CAS No.	EC No.	wt./vol%/max concentration	Hazard symbol	Risk Phrases
Dicooper chloride trihydroxide CuCl ₂ · Cu(OH) ₂			1332-65-6	215-572-9	61.5 wt. %	Xn, N	20-36-37-41-43-50/53

4. First aid measures:

4.1.	General instructions:	The product is harmful by inhalation. Ingestion in large quantities may cause gastroenteritis, nausea, vomiting and diarrhea. Systemic effects may follow and may include dizziness, elevated blood pressure, tremors.
4.2.	Inhalation:	Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
4.3.	Contact with skin:	Remove contaminated clothing and shoes. Thoroughly wash the affected parts of the body with water and soap.
4.4.	Contact with eyes:	Rinse the opened eye for 15 minutes under running water. If irritation and redness persist then seek medical help.
4.5.	Ingestion:	Wash out mouth with water and give water to drink. Do not induce vomiting. Seek medical attention.
4.6.	First aid at work:	Establish and maintain the necessary vital functions. If necessary, decontaminate the skin and mucous membranes. Use of adsorbents (activated carbon) is not applicable. Antidotes for heavy metal poisoning like dimerkaprol, Na ₂ Ca-EDTA, penicillamine with ignorant substance are not indicated.

5. Fire-fighting measures:

5.1.	Suitable extinguishing medium:	Use dry chemical, carbon dioxide, water spray, or foam.
5.1.1.	Extinguishing media which shall not be used for safety reasons:	Do not use direct water jet.
5.2.	Special exposure hazards:	In the case of fire - hydrogen chloride and oxides of copper may form. Never rinse the contaminated soil with water. Water from the fire should not be allowed to enter drain systems or watercourses. It should be separately collected and disposed of at an appropriately regulated landfill, in accordance with the applicable rules of the disposal of hazardous waste.
5.3.	Special protective fire fighting equipment, indicated by standard if any:	n.a.

6. Accidental release measures:

6.1.	Personal safety measures:	Fungicide applicators & workers must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection.
6.2.	Environment protection:	This fungicide is toxic to fish and aquatic organisms. Do not allow rinsate from cleaning of equipment or disposed material to enter surface or ground water. Do not contaminate water by disposal of equipment washwaters.

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6.3.	Cleaning after accidental discharge:	<p>Use proper personal protective equipment as indicated in Section 8.</p> <p><i>Land Spill:</i> Sweep up and place in suitable containers for later disposal. Avoid infiltration into surface and ground water.</p> <p><i>Methods for cleaning up:</i> Flush remainder with water (Absorb the remainder with sand, earth , vermiculite).</p> <p><i>Water Spill:</i> If feasible, copper may be precipitated/ultrafiltrated with caustics or other chemicals and resulting sludge disposed of in a chemical landfill. According to local regulations.</p> <p><i>Environmental hazards:</i> This fungicide is toxic to fish and aquatic organisms. Do not allow rinsate from cleaning of equipment or disposed material to enter surface or ground water. Do not contaminate water by disposal of equipment washwaters.</p>
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7. Handling and storage:

7.1.	Handling:	
7.1.1.	Safety measures:	Do not breathe dust, vapour, mist. Use only in a well-ventilated area. Minimize dust generation and accumulation.
7.1.2.	Technical measures:	Store protected from moisture.
7.1.3.	Recommended and forbidden measures:	Avoid ingestion and inhalation. Wash contaminated clothing and other protective equipment before storing or re-using.
7.2.	Storage:	
7.2.1.	Conditions for safe storage:	Store product in close original container in a dry, well-ventilated area away from incompatible substances. Store protected from moisture.
7.2.2.	Separating incompatible products:	Keep away food, feed and drinking water.
7.2.3.	Special packaging:	/
7.2.4.	Protection against static electricity:	n.a.
7.3.	Specific use:	Cuprablau Z is a preventive, contact fungicide used for controlling grapevine, potato, tomato, olive, onion and hop disease; apple, pear, peach and drupe disease.

8. Exposure control/personal protection:

8.1.	Exposure limit values:	n.a.
8.2.	Exposure control:	Ventilation (locally and spatially).
8.2.1.	Health and safety measures at the workplace:	
	Personal protection:	
	Respiratory system protection:	In enclosed spaces where the TLV may be exceeded, wear NIOSH approved dust or mist respirator.
	Skin and body protection:	Coveralls over short-sleeved shirt and long pants; shoes plus socks.
	Hand protection:	Chemical-resistant gloves made of any waterproof material.

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	Eye protection:	Protective eyewear.
	General work hygiene:	Wash contaminated clothing and other protective equipment before storing or re-using.
8.2.2.	Environment exposure control:	n.a.

9. Physical and chemical properties:

9.1.	General information:	
	- appearance	Wettable powder (WP), green-blue colour.
	- odour	Odourless.
9.2.	Important health, safety and ecological information:	
	- pH:	7,3 to 7,8 (1% water suspension, 20°C).
	- Boiling point:	No boiling point before decomposition.
	- Melting point:	Decomposes on heating above 200 °C
	- Flash point:	n.a. (solid)
	- Ignition point (for solids and gases):	n.a.
	-Explosive properties (upper/lower border):	No explosive properties.
	- Oxidation properties:	n.a. Decomposition temperature of copper oxychloride is high, indicating a high energy of activation. It is, therefore considered inert under conditions of oxidation.
	- Vapour pressure:	n.a. (fine powder)
	- Relative density:	n.a.
	- Solubility (in water and fats):	Water: < 10 µg/l Cu.
	- Partition coefficient: n-octanol/water	Not viable due to the negligible solubility in water and n-octanol.
	- Other data:	Self-ignition temperature: Not observed following use of many years. Wholly inorganic salts are not combustible or flammable.
	- Note:	/

10. Stability and reactivity:

10.1.	Stability and reactivity:	The product is stable under normal conditions and in neutral media.
10.1.1.	Conditions to avoid:	Moisture (substance is hygroscopic), substances with acid reaction.
10.1.2.	Incompatibility with other	Materials with acid reaction, strong acids and bases, chlorates.

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	substances:	
10.2.	Hazardous products of decomposition:	This product is unlikely to spontaneous decompose.
10.3.	Other data:	/

11. Toxicological information:

11.1.	Acute effects (acute toxicity, irritation and corrosivity):	Acute oral LD50/Rat: > 2000 mg/kg Acute oral LD50/Mouse: 2235,5 mg/kg Dermal Irritation/Rabbit: Non irritating. Ocular Irritation/Rabbit: Non irritating.
11.2.	Chronic toxicity or repeated dose toxicity:	None known.
11.3.	Oversensibility:	None known.
11.4.	Specific effects(CMR effects-carcinogenity,mutagenicity and toxicity for reproduction:	None known.

12. Ecological information:





12.1.	Ecotoxicity:	Mobility-EC50/Daphnia magna Straus: 0,116 mg/l. Growth-EC50/Algae Scenedesmus subspicatus: 0,62 mg/l (on surface); 10,03 (increase). Reproduction-EC50/Bacterium Pseudomonas putida Migula: 0,574 mg/l (linear regression); 0,636 mg/l (interpolation). Acute Toxicity-LD50/Fish Brachydanio rerio Hamilton-Buchanan: 5,6 mg/l. Bee toxicity: Non toxic.
12.2.	Mobility:	The degree of mobility of copper in the environment depends upon the pH of ambient soils and water. The higher the acidity, the more soluble copper salts are and, hence, the more mobile.
12.3.	Persistence and degradability:	Long term degradation products may arise. At pH > 5 copper is practically immobilised. Copper mobilization increases with the acidity growth (strong effect already at pH < 4,5).
12.4.	Bioaccumulative potential:	Bioaccumulation occurs only when copper is biologically abundant. Due to copper adsorption and complexity this abundance is greatly reduced depending on pH value and the presence of other cations. This is why copper rarely is a sign of toxicity.
12.5.	Results of PBT assessment:	Cuprablau Z is not considered to PBT/vPvB. It is persistent, bioaccumulation is very low /fungicide is rarely an indicator of toxicity/.
12.6.	Other adverse effects:	Do not contaminate streams, rivers or waterways.

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13. Disposal considerations:

13.1.	Product:	Product wastes are hazardous. Dispose in accordance with applicable Federal, State and Local laws and regulations.
13.2.	Contaminated packaging:	Dispose in accordance with applicable Federal, State and Local laws and regulations.

14. Transport information:

14.1	ADR, RID:	  <p>Environmentally hazardous substance Class 9: Miscellaneous dangerous substances and articles.</p>
14.2.	UN number:	3077
14.3.	Name:	Environmentally hazardous substance, solid, n.o.s. (61.5 wt.%: copper oxychloride)
14.4.	Class:	9
14.5.	Classification code:	M7
14.6.	Packaging group:	III
14.7.	Hazard label:	 
14.8.	Tunnel restriction code (TRC):	(E)

15. Regulatory information:

15.1.	EC classification, letter, hazard labels, S and R (with the text), special regulations:	
15.1.1.	Classification:	Xn, N
15.1.2.	Labelling:	<p>R: 20-36-37-41-43-50/53 S: 2-13-39-45-60-61</p> <p style="text-align: center;">   </p> <p style="text-align: center;">HARMFUL DANGEROUS FOR THE ENVIRONMENT</p>
15.1.3.	Risk Phrases:	<p>R 20 Harmful by inhalation.</p> <p>R 36 Irritating to eyes.</p> <p>R 37 Irritating to respiratory system.</p>

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		<p>R 41 Risk of serious damage to eyes.</p> <p>R 43 May cause sensitization by skin contact.</p> <p>R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>
15.1.4.	Safety Phrases:	<p>S 2 Keep out of the reach of children.</p> <p>S 13 Keep away from food, drink and animal feeding stuffs.</p> <p>S 39 Wear eye/face protection.</p> <p>S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</p> <p>S 60 This material and its container must be disposed of as hazardous waste.</p> <p>S 61 Avoid release to the environment. Refer to special instructions(safety data sheets).</p>
15.1.5.	Special provisions:	/
15.2.	Regulations /Standards:	EEC Directives.
16. Other information:		
16.1.	Write out the full text of any R phrases referred to under heading 2 and 3 of the SDS:	20-36-37-41-43-50/53
16.2.	Staff training:	Course from safety of health at work, fire safeties and treatments with hazardous chemicals.
16.3.	Recommended or restricted use of product:	n.a.
16.4.	Instructions:	Please read all labels carefully before use.
16.5.	Sources:	<p><i>Institute where studies was conducted: National Institute of Biology , Ljubljana, Slovenia. Testing methodology used: EEC/EU.</i></p> <p>EEC Directives.</p>
16.6.	Revised issue:	Transport information.
<p>Labeling according to EEC Directives.</p> <p>The information in this Material Safety Data Sheet relates to this specific material.</p> <p>It is based on the present state of our knowledge and experience.</p> <p>Recipients of our product must take responsibility for observing existing laws and regulations.</p>		