

## 1. Identification

<b>GHS product identifier</b>	<b>Cuprozin 35 WP</b>
<b>Other means of identification</b>	
<b>Product code</b>	70135_ZA
<b>Recommended use</b>	Plant protection product. Fungicide.
<b>Recommended restrictions</b>	No data available.
<b>Manufacturer information</b>	
<b>Company</b>	Cosaco GmbH Singapurstrasse 1 20457 Hamburg Germany
<b>Telephone number</b>	+49 40 2365 20
<b>E-mail</b>	SDS@cosaco.com
<b>Local representative (South Africa)</b>	Disa Bio Technologies
<b>Telephone number</b>	+27 21 794 8566 / + 27 83 247 9749
<b>Emergency telephone</b>	Asia Pacific: 1-760-476-3960 Americas: 1-760-476-3962 Europe: 1-760-476-3961 Middle East/Africa: 1-760-476-3959 Global Response Access Code: 334018 Account: 14537

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Not classified.	
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

### Label elements



<b>Signal word</b>	Warning
<b>Hazard statement</b>	Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Avoid release to the environment.
<b>Response</b>	Collect spillage.
<b>Storage</b>	Not assigned.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards which do not result in classification</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

<b>Hazardous components</b>		
<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Copper oxychloride	1332-65-6	50 - 70
Alcohols, C12-18, ethoxylated	68213-23-0	0.1 - < 1

Non-hazardous components		
Chemical name	CAS number	%
Limestone	1317-65-3	25 - 50
<b>Composition comments</b>	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.	
<b>4. First-aid measures</b>		
<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.	
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.	
<b>Eye contact</b>	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.	
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.	
<b>Most important symptoms/effects, acute and delayed</b>	None known.	
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.	
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.	
<b>5. Fire-fighting measures</b>		
<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).	
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.	
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.	
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.	
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.	
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.	
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.	
<b>6. Accidental release measures</b>		
<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.	
<b>Methods and materials for containment and cleaning up</b>	Ventilate the contaminated area. Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Wear appropriate protective equipment and clothing during clean-up. Prevent product from entering drains. Do not allow material to contaminate ground water system. Stop the flow of material, if this is without risk.  Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.  Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.	
<b>Environmental precautions</b>	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.	
<b>7. Handling and storage</b>		
<b>Precautions for safe handling</b>	Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.	
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a cool, dry, well-ventilated place. Store in tightly closed container. Keep only in the original container. Store away from foodstuffs. Store away from incompatible materials (see section 10 of the SDS). Recommended storage temperature: 0 - 30 °C.	

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### South Africa. Recommended Exposure Limits (RELs) Regulations for Hazardous Chemical Substances, Table 2

Components	Type	Value	Form
Copper oxychloride (CAS 1332-65-6)	TWA	2 mg/m3	Dust and mist.
		0.4 mg/m3	Fume.

### Biological limit values

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

### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves.  
Glove material: Polyvinyl chloride (PVC).  
Breakthrough time: 480 minutes.

##### Other

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2).

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Solid.

#### Form

Powder.

#### Colour

Light green.

### Odour

Weak odor.

### Odour threshold

Not available.

### pH

6.0 - 9.5 (20 °C) CIPAC MT 75.3

### Melting point/freezing point

Not available.

### Initial boiling point and boiling range

Not available.

### Flash point

Not applicable.

### Evaporation rate

Not applicable.

### Flammability (solid, gas)

Not flammable. EEC A10

### Upper/lower flammability or explosive limits

#### Explosive limit - lower (%)

Not applicable.

#### Explosive limit – upper (%)

Not applicable.

### Vapour pressure

Not available.

### Vapour density

Not applicable.

### Relative density

Not available.

### Solubility(ies)

#### Solubility (water)

Dispersible in water.

### Partition coefficient (n-octanol/water)

Not available.

### Auto-ignition temperature

Product is not selfigniting. EEC A16

### Decomposition temperature

Not available.

### Viscosity

Not applicable.

## Other information

<b>Bulk density</b>	920 - 980 g/l solid CIPAC MT 33 670 - 730 g/l loose CIPAC MT 33
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid dust formation. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizers, strong acids, and strong bases.
<b>Hazardous decomposition products</b>	By heating and fire, corrosive vapours/gases may be formed. Copper oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	No adverse effects due to eye contact are expected.
<b>Ingestion</b>	No adverse effects due to ingestion are expected.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	None known.
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### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
Cuprozin 35 WP (CAS Mixture)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg OECD 402 [Manufacturer]
<b>Inhalation</b>		
<i>dust/mist</i>		
LC50	Rat	> 7.2 mg/l, 4 hours OECD 403 [Manufacturer]
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg OECD 401 [Manufacturer]

Components	Species	Test Results
Copper oxychloride (CAS 1332-65-6)		
<b>Acute</b>		
<b>Dermal</b>		
<i>Solid</i>		
LD50	Rabbit	> 2000 mg/kg OECD 402
<b>Inhalation</b>		
<i>Solid</i>		
LC50	Rat	2.83 mg/l, 4 h OECD 402
<b>Oral</b>		
LD50	Rat	299 mg/kg OECD 401

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

#### Corrosivity

Cuprozin 35 WP	OECD 404, [Manufacturer] Result: Non-irritant. Species: Rabbit
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**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Eye**

Cuprozin 35 WP

OECD 405, [Manufacturer]

Result: Non-irritant.

Species: Rabbit

**Respiratory or skin sensitisation****Respiratory sensitisation** Due to partial or complete lack of data the classification is not possible.**Skin sensitisation** Based on available data, the classification criteria are not met.**Skin Sensitisation**

Cuprozin 35 WP

Result: No sensitising effects are known.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Not likely, due to the form of the product.**12. Ecological information****Ecotoxicity** Very toxic to aquatic life with long lasting effects.

Product	Species	Test Results
Cuprozin 35 WP (CAS Mixture)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EbC50	Scenedesmus subspicatus
		> 187.5 mg/l, 72 hours OECD 201 [GHS Classification Report]
Crustacea	EC50	Daphnia magna
		0.34 mg/l, 48 hours OECD 202 [Manufacturer]
Fish	LC50	Rainbow trout
		0.052 mg/l, 96 hours OECD 203 [GHS Classification report]

Components	Species	Test Results
Copper oxychloride (CAS 1332-65-6)		
<b>Aquatic</b>		
Algae	ErC50	Scenedesmus subspicatus
		> 187.5 mg/l, 72 hours (mg Cu/l) OECD 201
Crustacea	EC50	Daphnia magna
		0.29 mg/l, 48 hours (mg Cu/l) OECD 202
Fish	LC50	Oncorhynchus mykiss
		0.052 mg/l, 96 hours (mg Cu/l) OECD 203

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.**Bioaccumulative potential** Not relevant for inorganic substances.**Mobility in soil** No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.**14. Transport information****ADR****UN number** UN3077

**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper oxychloride)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Label(s)** 9  
**Hazard No. (ADR)** 90  
**Tunnel restriction code** -  
**Packing group** III  
**Environmental hazards** Yes.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**RID**

**UN number** UN3077  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper oxychloride)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Label(s)** 9  
**Packing group** III  
**Environmental hazards** Yes.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IATA**

**UN number** UN3077  
**UN proper shipping name** Environmentally hazardous substance, solid, n.o.s. (Copper oxychloride)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Yes.  
**ERG Code** 9L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** UN3077  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper oxychloride)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes.  
**EmS** F-A, S-F  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**15. Regulatory information**

**Safety, health and environmental regulations specific for the product in question** This product is classified in accordance with SANS 10234: 2019 – Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This Standard is aligned with the 4th revision of the UN GHS Purple book.

**Hazardous Substances Act, 1973 (Act No. 15 of 1973)**

Not listed.

**International regulations**

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Montreal Protocol**

Not applicable.

**Kyoto Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information**

<b>Issue date</b>	13-June-2022
<b>Revision date</b>	-
<b>Version No.</b>	01
<b>List of abbreviations</b>	EbC50: EC50 in terms of reduction of biomass EC50: Effective Concentration 50%. ErC50: EC50 in terms of reduction of growth rate. LC50: Lethal Concentration 50%. LD50: Lethal Dose 50%.
<b>Disclaimer</b>	The information in the sheet was written based on the best knowledge and experience currently available.