SAFETY DATA SHEET

ACCORDING TO THE SOUTH AFRICAN REGULATIONS FOR HAZARDOUS CHEMICAL AGENTS - 2021

CUPRA SUPER

SECTION 1: Product and Company Identification

Identification of the product/preparation

Product Name:	Cupra Super
Trade Name/Synonyms:	Cupra Super
Registration Number:	L9906
Product Description and Type:	A copper-containing suspension concentrate fungicide and bacteriacide for the control of diseases in crops.

Active Ingredient

Formula:	CuH4O2
CAS Number:	20427-59-2

Supplier

Registration Holder
ROLFES AGRI (PTY) LTD.
Reg. No. 1998/013411/07
288 Mundt Street
Silverton
0127
Gauteng
Tel: +27 (12) 803 0145

Batch No.
Date of manufacture
Expiry date
UN Number

Emergency contact details

Office Hour Poisoning Helpline
Rolfes Agri (Pty) Ltd.
Tel: +27 (12) 803 0145

Spill Response and Transport incidents
Spill Tech, Oil and chemical pollution control
Tel: +27 (86) 100 0366/ +27 (83) 253 6618
www.spilltech.co.za

Relevant identified uses of the product and uses advised against
For use in Agriculture and use as per the product label.

SECTION 2: Hazards Identification

Classification of the substance or mixture
This product is classified as hazardous according to the criteria in South Africa - GHS classification and labelling of chemicals and the Regulations for Hazardous Chemical Agents 2021.

Classification:

Hazard class	Category	Hazard Statement Number
Acute Toxicity; Oral	4	H302
Acute Toxicity; Inhalation	3	H331
Serious Eye Damage/Eye Irritation	1	H318
Hazardous to the Aquatic Environment, Acute Hazard	1	H400
Hazardous to the aquatic environment, long-term hazards	2	H411

Label Elements
South Africa. GHS classification and labelling of chemicals and the Regulations for Hazardous Chemical Agents 2021.

Pictograms:

Signal Word:
Danger!

Hazard Statements:

Statement Number	Hazard Statement
H302	Harmful if swallowed
H331	Toxic if inhaled
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements:

General –

Statement Number	Hazard Statement.
P101	If medical advice is needed, have container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instruction

Prevention -

Statement Number	Precautionary Statement
P233:	Keep the container tightly closed.
P261:	Avoid breathing vapours.
P264:	Wash affected area thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271:	Use only outdoors or in a well-ventilated area.
P273:	Avoid release to the environment.
P280:	Wear Full face respirator when handling this product.

Response -

Statement Number	Precautionary Statement
P301 + P317:	IF SWALLOWED: Get medical help.
P391:	Collect spillage.
P304 + P317:	IF INHALED, get medical help.
P304 + P340:	IF INHALED, remove the person to fresh air and keep comfortable for breathing.
P305 + P354 + P338:	IF IN EYES, immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321:	Specific treatment (see first aid on this label)
P330:	rinse mouth

Storage -

Statement Number	Precautionary Statement
P403:	Store in a well-ventilated place.
P405:	Store locked up.
P403 + P233:	Store in a well-ventilated place. Keep container tightly closed.

Disposal -

Statement Number	Precautionary Statement
P501:	Empty all pesticides from the container by placing it upside down over the spray tank and holding it there for at least 30 seconds. Puncture the rinsed container to render it useless and send to a recycler.

Other Hazards

None known

SECTION 3: Composition/Information on Ingredients

Mixture

Common Name:	Copper hydroxide.
IUPAC/Chemical Name:	copper;dihydrate.

Chemical Family:	Hydroxides.
Formulation:	Copper Hydroxide 180 g/L

Ingredients with Hazard Concerns (GHS)
According to UN GHS criteria.

Hazardous Component	CAS Number	Weight - %	GHS Classification
Copper Hydroxide	20427-59-2	< 20	Acute Toxicity (Oral) Category 4. Acute Toxicity (Inhalation) Category 3. Serious Eye Damage/Irritation Category 1. Aquatic Toxicity, Acute Category 1. Aquatic Toxicity, Chronic Category 2.

NOTE: There are no other ingredients present according to the current knowledge of the supplier (condisering their concentrations present in the product) that are classified as hazardous to health or the environment and that cause/contribute to the correct GHS classification of this Product. These ingredients are therefore, in terms of the South African Hazardous Chemical Agent Regulations 2021; Regulation 14(b), not listed.

SECTION 4: First-Aid Measures

Description of First-aid Measures

General Advice	The symptoms resulting from direct exposure to the product could appear a while after exposure. If persistent discomfort, seek medical attention. Provide this SDS to medical personnel for treatment. Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.
Eye Contact	IF IN EYES, immediately rinse with water for several minutes or irrigate each eye with normal saline, do not use emetics. Remove contact lenses, if present and easy to do. Immediately rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Check for and remove contact lenses if easy to do so. Continue rinsing. Obtain medical attention if irritation occurs and persists.
Skin Contact	Remove all contaminated clothing and shoes. Wash contaminated clothing before re-use. Rinse the skin immediately with plenty of water
Inhalation	IF INHALED, remove the person to fresh air and keep comfortable for breathing. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain immediate medical attention.
Ingestion	IF SWALLOWED: Get medical help. If conscious, rinse mouth and administer 5 ml/kg up to 200 ml of water for dilution if the patient can swallow, has strong gag reflex, and does not drool. Administer an activated charcoal. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting unless directed to do so by a medical professional. If

	spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water.

Most important symptoms/effects, acute and delayed
Symptoms of exposure to the product include: Eye irritation.

Indication of any immediate medical attention and special treatment needed
Notes to physician: None.
Specific treatments: Treat symptomatically and supportively.

SECTION 5: Firefighting Measures

Suitable (and unsuitable) extinguishing media	Use carbon dioxide, dry chemical, alcohol resistant foam, or water spray. Do not use water jets.
Specific hazards arising from the chemical including thermal decomposition products	Fires involving the product may produce irritating or poisonous vapours, mists or other products of combustion. Closed containers may explode form vapour expansion in high heat.
Special protective equipment and precautions for fire-fighters	Firefighters must wear emergency equipment including positive pressure self-contained breathing apparatus with a full-face mask. Remove unaffected containers from fire area if possible.
Additional provisions	Act in accordance with the site's Internal Emergency Plan and the Workplace Specific Procedures for actions to be taken after an accident or other emergencies.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures
Do not breathe in dust/fumes/vapour and avoid contact with eyes, skin and clothes.
Ventilate the area of the spill or leak, especially when in confined areas.
Do not touch or walk through spilled material as slippery when spilt.
Contain spills if it can be done without risk and clean-up immediately.
Wear appropriate protective clothing recommended in Section 8 of the SDS.

Environmental Precautions
Prevent spillage or further leakage if safe to do so.
Do not allow the spilt product to enter water courses and drains and avoid contact with soil.
Do not allow the spilt product to spread to other areas - keep the spilt material contained and isolated.
Report spills and releases as required to appropriate authorities if the spilt product has caused environmental pollution (sewers, water ways, soil or air).

Methods for cleaning up
For small spills, Sweep up with damp absorbent material. Place into a labelled waste container subsequent reclamation or disposal. Keep the wash water out of drains, sewers and waterways.

For large spills, Sweep up with absorbent material. Avoid creating dusty conditions and prevent wind dispersal and place the residues into a suitable container for proper disposal. Keep the wash water out of drains, sewers and waterways.

Reference to other sections
See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and Storage

Precautions for safe handling
Do not return product residues to the storage containers. Always provide good ventilation in the work area. Prevent contact with eyes, skin and clothing. Do not breathe in dust/vapours/spray mists. Wear protective clothing and equipment during handling as described in Section 8 of the SDS.
Do not eat or drink during use. Wash the hands and face thoroughly with soap after handling. Keep containers closed when not in use. Do not permit smoking in use or storage areas.
Locate emergency showers and eye-rinsing facility near the work/handling area. Maintain good normal industrial hygiene and housekeeping practices in areas where the product is used/handled.

Conditions for safe storage, including any incompatibilities
Always store locked up and keep containers tightly closed when not in use. Store in a cool, dry and well ventilated place, out of direct sunlight. Check storage containers regularly for leaks and protect containers from physical damage. Store in the original container, avoid cross contamination with other agricultural products. Keep out of reach of children, uninformed persons and animals. Do not contaminate water, food, or feed by storage or disposal. It is recommended to have appropriate spill control kits equipped with absorbent material in close proximity to storage areas (see Section 6).

Specific end use(s)
Use as directed. Use original container.

SECTION 8: Exposure Controls and Personal Protection

Occupational Exposure Limits – Restricted Limits For Hazardous Chemical Agents.

Component	Type	Control Parameter	Update	Basis
Not applicable	OEL-eight hour TWA	N/A	2021	South African RELs*
	OEL-STEL/C	N/A	2021	South African RELs*

*REL: Recommended Exposure Limit.
OEL-eight hour TWA: Occupational Exposure Limit- Time Weighted Average. Calculated over an eight-hour working day, for a five-day working week.
OEL-STEL/C: Occupational Exposure Limit – short Term Exposure Limit /Ceiling Limit. Peak airborne concentration determined over the shortest analytically practicable period of time, which does not exceed 15 minutes.

National Biological Exposure Indices (BEIs) For Hazardous Chemical Agent

Component	Sample Matrix	Sample Time	Value
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Appropriate engineering controls

Good general ventilation should be sufficient to maintain airborne concentrations and exposure below occupational exposure limits.

Personal Protective Equipment

Respiratory Protection:	Respiratory protection selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted and well maintained particulate filter respirator, complying with an approved standard. Respirator selection and use should be based on contaminant type, form and concentration. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
Skin and Hand Protection:	Select skin and hand protection based on the task being performed and the risks involved with the task. The gloves should be replaced immediately in case of damage or signs of wear. The personal protective clothing must be properly fitted and well maintained.
Eye/Face Protection:	Select safety eye/face protection based on the task being performed and the risks involved with the task. Wear tightly fitted and well maintained safety eyewear compliant with an approved standard.
Hygiene Measures:	Wash the hands and/or face before breaks, eating, smoking or using the lavatory and at the end of the shift/working period. Eye wash fountains and safety showers should be available and easily accessible. Wash contaminated clothing before reuse.

Environmental exposure controls

In accordance with the local legislation for the protection of the environment it is recommended to avoid environmental spillage or releases of both the product and its container.

SECTION 9: Physical and Chemical Properties

Data applicable to mixture.

Appearance	Appearance/physical state	Liquid Suspension.
	Odour characteristics	Pungent odour.
	Colour	Blue.
Volatility	Boiling point (°C)	>100 °C
	Vapour pressure (Pa)	Not Applicable.
	Evapouration Rate at 20 ºC	Not Applicable.
Product Description	Relative density (kg/m^3, relative density of water =1)	1.16.
	Solubility in water (g/100mL)	Soluble in water.
	Decomposition temperature (°C)	Not Applicable.
	Melting point/freezing point (°C)	Not Applicable.
	pH	9.32 @ 20.9 °C
	Density/relative density (g/cm$^{3)}$	1.16
	Particle characteristics	Not Applicable.
Flammability	Flammable (Y/N)	Not Applicable.
	Flash point (°C)	Not Applicable.
	Flammable limits-LEL	Not Applicable.
	Auto-ignition Temperature (°C)	Not Applicable.

*Not relevant due to the nature of the product, not providing information property of its hazards.

Other Hazard Information

None Known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity
The product is stable under normal conditions. Copper is corrosive to aluminium, especially when in aqueous state and elevated temperatures.

Chemical Stability
Stable under normal ambient conditions of use, storage and transport

Possibility of Hazardous Reactions
None known under conditions of normal use.

Conditions to Avoid
Avoid extreme temperatures (>50°C). Keep away from heat and ignition sources and avoid exposure to high moisture conditions for prolonged periods.

Incompatible Materials
Incompatable with: Avoid strong oxidizing agents and acids.

Hazardous Decomposition Products
Decomposes in high temperature to CuO + H2O.

SECTION 11: Toxicological Information

Information on likely routes of exposure
Toxicokinetics, metabolism and distribution:
Non-human toxicological data: No Information available.
Method: No Information available.
Dosage: No Information available.
Routes of administration: No Information available.
Results: No Information available.
Absorption: No Information available.
Distribution: No Information available.
Metabolism: No Information available.
Excretion: No Information available.

Information on toxicological effects:
Acute toxicity:
Acute oral toxicity: Copper Hydroxide.
LD50 (calculated): 2336.97 mg/L for rats.
Category 4
Acute dermal toxicity: Does not meet the GHS Classification criteria.
Acute inhalation toxicity: Copper Hydroxide
LD50 (calculated): 2.16 mg/L for rats
Skin corrosion/irritation: Does not meet the GHS Classification criteria.
Serious eye damage/irritation: Copper Hydroxide.
Danger! According to the harmonised classification and labelling (ATP17) approved by the European Union, this substance causes serious eye damage.
Category 1
Respiratory or skin sensitization: Does not meet the GHS Classification criteria.
Germ cell mutagenicity: Does not meet the GHS Classification criteria.
Carcinogenicity: Does not meet the GHS Classification criteria.
Reproductive toxicity: Does not meet the GHS Classification criteria.
STOT-single exposure: Does not meet the GHS Classification criteria.

STOT-repeated exposure: Does not meet the GHS Classification criteria.
Aspiration hazard: Does not meet the GHS Classification criteria.

Symptoms related to the physical, chemical and toxicological characteristics
Causes eye damage.

SECTION 12: Ecological Information

Ecotoxicity
Short-term (Acute) hazard Aquatic: Very toxic to aquatic life.
Long-term (Chronic) hazard Aquatic: Toxic to aquatic life with long lasting effects.
Bio-degradability in the aquatic environment: Readily degradable in water.

Crustacea (Daphnia magna): 0.04 mg/L.
Fish: 0.13 mg/L.
Algae and aquatic plants: 35 mg/L.
Toxicity to other species
Birds: 25 mg/kg soil dw.
Bees:
Soil organism: 763 mg/kg soil dw.

Other Environmental and Adverse Effects:
Persistence and Degradability: Copper Hydroxide.
Copper is an inorganic compound that cannot be degraded in soils. Copper can be present under different forms, most of which are strongly bound to inorganic and organic ligands contained within soil and sediments. The fate and behaviour of copper, as its bio availability, strongly depend on the distribution of these different forms.

Bioaccumulative Potential: Copper Hydroxide.
BCF (Aquatic Species): Copper is strongly Bio-accumulative.

Mobility in Soil:
Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Other Adverse Effects:
High concentration in receiving water will injure aquatic life.

SECTION 13: Disposal Considerations

Waste handling and disposal
Dispose product related waste in accordance with all local regulations and prevent the contamination of water, food, or feed by storage or disposal of the waste.

General container handling
Empty all pesticides from the container by placing it upside down over the spray tank and holding it there for at least 30 seconds. Puncture the rinsed container to render it useless and send to a recycler. Do not use empty containers for any other purpose.

SECTION 14: Transport Information

	Land Transport (ADR/RID)	Inland Waterways (AND/ADNR)	See Transport (IMDG)	Air Transport (ICAO-TI/IATA-DGR)
UN Number	3082	3082	3082	3082
UN Proper Shipping Name	Environmentally hazardous substance, liquid, N.O.S (copper dihydroxide copper(ii) hydroxide)	Environmentally hazardous substance, liquid, N.O.S (copper dihydroxide copper(ii) hydroxide)	Environmentally hazardous substance, liquid, N.O.S (copper dihydroxide copper(ii) hydroxide)	Environmentally hazardous substance, liquid, N.O.S (copper dihydroxide copper(ii) hydroxide)
Transport Hazard Class	9	9	9	9
Transport Hazard Class Pictogram				
Transport Subsidary Class	Not Applicaple	Not Applicaple	Not Applicaple	Not Applicaple
Packaging Group	III	III	III	III
Environmental Hazard				

SECTION 15: Regulatory Information

Safety, health and environmental regulations/legislation for the mixture.

South Africa
Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act. - Handling, labelling and Safety Data Sheets for hazardous and GHS classified substances and mixtures. Occupational Exposure Limits.
Hazardous Substances Act**,** 1973 (Act No.15 of 1973) - Requirements on the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of hazardous substances**.**
Occupational Health and Safety Act No. 85 of 1993.- Occupational Health and Safety Standards for employers and users working with and around hazardous chemical substances.
National Road Traffic Act, 1996 (ACT NO. 93 of 1996). - The identification and classification of dangerous goods for transport by road and rail modes.

Botswana
Pesticides and Toxic Substances Regulations. 1994 (2006) - Control and management of pesticides and other toxic substances.
Environmental and Pollution Control Act. 1990 - Hazardous waste disposal, hazardous substances, pesticides and effluent waste water/discharge.

Namibia
Labour Act 11 of 2007 - Hazardous substances classification, labelling, Chemical Safety Data Sheets and Occupational Exposure Limits. Notification of the use of carcinogens and other controlled substances.
Regulations relating to the Health and Safety of Employees at Work Government Notice 156 of 1997. Labour Act 11 of 2007 schedule, item 2(2). - Occupational Health and Safety Standards for employers and users working with and around hazardous chemical substances.

SECTION 16: Other Information

Indication of changes
Alignment to the GHS.

Relevant classification and H-Statements (Number and full text):
Acute Toxicity; Oral – Category 4
H302: Harmful if swallowed
Acute Toxicity; Inhalation – Category 3
H331: Toxic if inhaled
Serious Eye Damage/Eye Irritation- Category 1
H318: Causes serious eye damage
Hazardous to the Aquatic Environment, Acute Hazard – Category 1
H400: Very toxic to aquatic life
Hazardous to the aquatic environment, long-term hazards – Category 2
H411: Toxic to aquatic life with long lasting effects

Key to Abbreviations

AND	European Provisions concerning the International Carraige od Dangerous Goods by inland Waterways
ADR	The European Agreement concerning the International Carraige of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
COD	Chemical Oxygen Demand
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International Maritime Dangerous Goods
Log_{Pow}	Logarithm of the octanol/water partition coefficient
LD50	Lethal Dose 50
LC50	Lethal Concentration 50
RID	The Regulations concerning the International Carraige of Dangerous Goods by Rail
SDS	Safety Data Sheet
UN	United Nations

Notice to Reader
The information contained in this Safety Data Sheet relate only to the specific product and do not relate to the use of the product in combination with any other product or process. Information in the SDS is supplied to the best of ROLFES AGRI (PTY) LTD's knowledge and are believed to be current and correct as of the date on this SDS. All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

The SDS only provides information applicable to the health, safety and environmental hazards of this product at the date of issue in order to facilitate the safe use, handling, storage and transport of this product and does not replace any product information or product specifications.

It is not possible for ROLFES AGRI (PTY) LTD to anticipate or control all conditions under which this product may be used, handled, stored or transported. The obligation of the user, receiver, handler or transporter remains to review the content of the SDS prior to potentially exposing persons/employees to the product and to consider any risks that may associated with the hazards of the product during use, handlings, storage or transportation. Appropriate health, safety and environmental protection risk mitigating measures must be in place and such information must be communicated to all persons that might be involved with and exposed to this product.

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END OF SAFETY DATA SHEET