SAFETY DATA SHEET

AgStar Copper Chelate

1. IDENTIFICATION

Product name	AgStar Copper Chelate
Other names	Nil
Recommended uses	For the correction of copper deficiencies
Restrictions on supply	Nil
Supplier details	AgStar New Zealand Pty Limited
	4 Putakitaki Street, Lincoln, Christchurch 7608
Distributor details	Farmlands Co-operative Society Limited
	535 Wairakei Road, Burnside, Christchurch 8053
	0800 200 600
24-hour emergency contact	**0800 CHEMCALL (0800 243 6225)**
National Poison Centre	**0800 POISON (0800 764 766)**

2. HAZARD IDENTIFICATION

Hazard classification eye irritation Category 2

Signal word **WARNING**

Hazard statements **H319** Causes serious eye irritation

Pictograms

<u>Precautionary statements</u>

General	**P101**	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P103	Read carefully and follow all instructions.
Prevention	**P264**	Wash hands thoroughly after handling.
	P280	Wear eye protection.

Response	**P305 + P351 + P338**	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337 + P313	If eye irritation persists: Get medical advice.
Storage	**Nil**	
Disposal	**Nil**	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical identity	CAS Number	Concentration
Copper disodium EDTA *Copper(2+) ion disodium 2-({2-[bis(carboxylatomethyl)amino]ethyl}(carboxylatomethyl)amino)acetate*	14025-15-1	30 – 60%

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation Remove person to fresh air. If symptoms persist, call a doctor.

Skin contact Take off contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Ingestion Rinse mouth. Do NOT induce vomiting. Call a POISON CENTRE or doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

Eye contact Causes serious eye irritation. Symptoms may include redness, pain, stinging, tearing, blurred vision, and sensation of foreign body.

Skin contact Prolonged or repeated contact may cause mild, transient irritation (redness, dryness).

Inhalation Inhalation of vapours or mists may cause mild irritation of the respiratory tract (coughing, sore throat).

Ingestion May cause mild gastrointestinal irritation (nausea, vomiting, diarrhoea).

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively. No specific antidote. If eye irritation persists after thorough rinsing, seek medical advice promptly.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray or fog, carbon dioxide (CO_2), dry chemical powder, foam.

Specific hazards arising from the chemical

The product is not flammable and does not support combustion. Wear eye protection. Hazardous combustion products: Oxides of nitrogen and carbon.

Special protective equipment and precautions for fire-fighters

Wear self-contained breathing apparatus and full protective clothing for firefighting if necessary. Prevent fire-fighting water from entering drains or watercourses. Copper-containing residues may require special disposal considerations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Avoid contact with eyes and prolonged skin contact. Wear eye protection (see section 8). Evacuate unnecessary personnel from the spill area.

For emergency responders: Wear appropriate personal protective equipment as indicated in section 8.

Environmental precautions from accidental spills and release

Do not allow to enter drains, sewers, soil, or surface/ground water. Copper compounds are very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Inform the responsible authorities if the product has caused significant environmental contamination (e.g., entry into sewers, waterways, soil or air).

Methods and material for containment and cleaning up

For small spills: Contain and absorb spill with inert, absorbent material (e.g. sand, earth, vermiculite, or universal absorbent pads) and transfer to suitable labelled containers for recovery or disposal (see section 13).

For large spills: Collect by pumping to suitable labelled containers for recovery or disposal. Manage residues as for small spill (above).

After cleaning, flush area with water only if permitted by local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with eyes. Use only with adequate ventilation. Wear eye protection (see section 8). Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product. Contaminated work clothing should be washed before reuse.

Conditions for safe storage

Storage conditions	Store in original tightly closed containers in a cool, dry, well-ventilated area. Protect from frost and direct sunlight. Keep out of reach of children.
Incompatible materials	Strong acids and oxidising agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Copper (CAS 7440-50-8)	Copper (as Cu): No WES-TWA has been assigned by WorkSafe New Zealand for organic copper compounds or copper chelates. For inorganic copper fume and copper dusts & mists the WES-TWA is 0.01 mg/m^3 (respirable fraction), but this does not apply to copper disodium EDTA. As a conservative guideline, some safety professionals apply the historical value of 1 mg/m^3 (as Cu) that was used prior to 2022 for copper dusts and mists.

Engineering controls

General room ventilation is normally sufficient. Use local exhaust ventilation if mist/aerosol is generated.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection	Safety glasses/googles or face shield.
Hand protection	Gloves may be worn. Wash hands after handling.
Skin protection	Normal work clothing to prevent skin contact.
Respiratory protection	Not normally required; use P2/N95 respirator if ventilation is inadequate or irritation occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	**Value**
Physical state	Liquid
Colour	Blue
Odour	Mild
Melting point/freezing point	No data available

Property	Value
Boiling point or initial boiling point and boiling range	No data available
Flammability	Not applicable
Lower and upper explosion limit/flammability limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
pH	6.0 (typ)
Kinematic viscosity	No data available
Solubility	Soluble in water
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	No data available
Density and/or relative density	1.235 – 1.245
Relative vapour density	No data available
Particle characteristics	No data available

10. STABILITY AND REACTIVITY

Reactivity	No specific reactivity hazards associated with this product under normal handling and storage conditions.
Chemical stability	The product is stable under recommended storage and handling conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled as recommended.
Conditions to avoid	Protect from freezing. Avoid extreme heat (> 50°C) and direct sunlight for prolonged periods.
Incompatible materials	Strong acids, strong bases and oxidising agents.
Hazardous decomposition products	Under normal conditions of storage and use, no hazardous decomposition products are expected. In the event of fire or thermal decomposition, carbon oxides, nitrogen oxides, and traces of hydrogen cyanide may be formed.

11. TOXICOLOGICAL INFORMATION

acute toxicity	Based on available data, the classification criteria are not met.
skin corrosion/irritation	Based on available data, the classification criteria are not met.
serious eye damage/eye irritation	Causes eye irritation (Category 2, H319). Driven by ECHA Chemicals Database, CAS 14025-15-1, using mixture rules.
respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
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	Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Aquatic ecotoxicity	Based on available data, not classified as hazardous to the aquatic environment.
Terrestrial ecotoxicity	Based on available data, not classified as hazardous to the terrestrial environment.
Persistence and biodegradability	Readily biodegradable.
Bioaccumulative potential	Low potential for bioaccumulation.
Mobility in soil	High mobility in soil expected due to high water solubility.

13. DISPOSAL CONSIDERATIONS

Unused product, waste or residue	Dispose of in accordance with clause 9 of the Hazardous Substances (Disposal) Notice 2017: Treat to render non-hazardous (e.g. chemical treatment at an approved facility), incinerate or export from New Zealand as waste. Discharge to the environment only if the substance is very rapidly converted to non-hazardous substances (since no TEL is set). This substance contains copper; discharge to sewer or environment is subject to local authority regulations (e.g., trade waste bylaws).

Contaminated packaging	Dispose of in accordance with clause 12 of the Hazardous Substances (Disposal) Notice 2017: Triple rinse the container into the spray tank or treat the container so that the residual contents are below the threshold for the substance to be classified as hazardous. Thereafter, the container can be reused, recycled (delivered to Agrecovery) or sent to landfill. Label should be removed or made illegible.
Special precautions	Follow the precautions of section 6.
Disposal methods that should not be used	Do not dispose by dilution and discharge to sewer or environment unless in compliance with local authority regulations (e.g., trade waste bylaws).

14. TRANSPORT INFORMATION

Not classified as a Dangerous Good by road/rail (NZS 5433), sea (IMDG), or air (IATA/ICAO).

15. REGULATORY INFORMATION

HSNO approval	HSR002571 - Fertilisers (Subsidiary Hazard) Group Standard 2020
Exposure limits	Refer section 8.
HSR	Keep in suitable packaging and labelled appropriately. Include on hazardous substances inventory. Manage the risks to health and safety. Training on the substance must be provided to workers. Secondary containment, emergency response plan, and signage are not triggered.
ACVM	Exempt from registration.

The Montreal Protocol on Substances that Deplete the Ozone Layer	Not applicable
The Stockholm Convention on Persistent Organic Pollutants	Not applicable
The Rotterdam Convention	Not applicable

16. OTHER INFORMATION

Date of preparation	5 December 2025
Review date	5 December 2030

Abbreviations and acronyms

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997
CAS	Chemical Abstracts Service number
CCID	Chemical Classification and Information Database
EC50	Median effective concentration.
ECHA	European Chemicals Agency
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms Act 1996
HSR	Health and Safety at Work (Hazardous Substances) Regulations 2017
HSWA	Health and Safety at Work Act 2015
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
PubChem	US National Center for Biotechnology Information database
STEL	Short-Term Exposure Limit
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value - an exposure limit set by responsible authority.
TWA	Time-Weighted Average
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

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