Fruitfed Copper Oxychloride DF

Section 1: Identification

Product name:	Fruitfed Copper Oxychloride DF
Other names:	Copper oxychloride
Recommended use:	A protectant fungicide for the control of a wide range of fungal and bacterial disease of many fruit and vegetable crops.
Manufacturer/Importer details:	Fruitfed Supplies Part of PGG Wrightson Limited 1 Robin Mann Place Christchurch Airport 8053 New Zealand Phone: 03 372 0800 or 0800 102 276
24 hour emergency contact:	0800 CHEMCALL (0800 243 622)
National Poisons Centre:	0800 POISON (0800 764 766)

Section 2: Hazard identification

	Product is classified as hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020 of the HSNO Act, 1996.
HSNO Approval:	HSR000740
Hazardous classification:	Acute oral toxicity Category 4. Eye irritation Category 2. Skin sensitisation Category 1. Specific target organ toxicity (repeated exposure) Category 2. Hazardous to terrestrial vertebrates. Hazardous to the aquatic environment acute Category 1. Hazardous to the aquatic environment chronic Category 1.
Pictograms:	
Signal word:	**WARNING**
Hazard statements:	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects. Hazardous to terrestrial vertebrates.

Fruitfed Copper Oxychloride DF

Prevention statements:	P102 Keep out of reach of children. P103 Read label before use. P260 Do not breathe dust/mist/spray. P264 Wash exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves, protective clothing, eye protection and face protection.
Response statements:	P101 If medical advice is needed, have product container or label at hand. P301+P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice. P363 Wash contaminated clothing before reuse. P314 Get medical advice if you feel unwell. 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. P391 Collect spillage.
Storage statement/s:	-
Disposal statement/s:	P501 Dispose of product and containers in accordance with local Regulations. See section 13 for more details.

Section 3: Composition/information on ingredients

Chemical identity of ingredients with health or environmental hazards:

Ingredient	*CAS No.*	*Proportion w/w*
Copper oxychloride	1332-65-6	84*
Diatomaceous earth	61790-53-2	<10
Other ingredients	Trade secret	balance
* equivalent to copper 500 g/kg		

Section 4: First-aid measures

First aid measures:	If medical advice is needed, have product container or label at hand. If exposed or concerned, contact National Poisons Centre on 0800 POISON (0800 764 766) or a doctor.
Inhalation:	Remove person to fresh air and keep at rest in a position comfortable for breathing until recovered. Get medical advice if person feels unwell.
Ingestion:	Rinse mouth. Get medical advice if person feels unwell.

Fruitfed Copper Oxychloride DF

Skin contact:	Wash with plenty of soap and water. Get medical advice if irritation or rash occurs.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice if irritation persists.
First aid facilities:	Provide eye baths and safety showers close to areas where product contact or splashing may occur.
Advice to doctor:	Treat symptomatically.

Section 5: Fire-fighting measures

Flammability:	Non-flammable.
Appropriate extinguishing media:	Foam, water spray, dry powder, carbon dioxide (CO2). Foam or dyr chemical preferred media to prevent excessive water runoff.
Combustion products:	Smoke, carbon oxides, copper oxide and chloride or chlorinated acidic products.
Special protective equipment and precautions for fire-fighters:	Wear protective equipment including self-contained breathing apparatus (SCBA).
HAZCHEM code:	2Z

Section 6: Accidental release measures

Personal precautions:	Wear protective equipment: chemical resistant coveralls, boots, gloves, eye protection. Wear respiratory protection if there is a risk of contact with dust.
Environmental precautions:	Contain spill. Prevent from entering waterways, drains, sewers. Notify local authorities if contamination of waterway occurs.
Procedure for clean up:	Contain and recover spill into labelled container for re-use or disposal. Sweep up avoiding generation of dust. If spray solution is spilt, bund and recovery liquid if possible. Otherwise absorb residue spills with suitable material, e.g. sand, vermiculite, clay granules. Dispose of contaminated waste to approved landfill.

Section 7: Handling and storage

Safe handling:	Read label before use. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. To be used only by suitably qualified person and in compliance with HSNO Controls.
Safe storage:	Keep out of reach of children. Keep container tightly closed when not in use. Store in secure, cool, well-ventilated area away from foodstuffs, seeds, fertilisers and human/animal health products. Storage must be in accordance with the latest version of NZS 8409 Management of Agrichemicals.

Fruitfed Copper Oxychloride DF

Section 8: Exposure controls/personal protection

Occupational exposure limits:

Ingredient	*Exposure*	*WES-TWA*	*WES-STEL*
Dust, mists, as Cu	Inhalation	0.01 mg/m^3(r)	-
Diatomaceous earth	Inhalation	10 mg/m^3	-
(r) = respirable dust			

Biological limit value: Not set.

Engineering controls: Use with adequate ventilation, i.e. outdoors.

Respiratory protection: Not required if used outdoors with adequate ventilation. If risk of inhalation, wear respirator fitted with suitable filter, e.g. EN143 or 149. Type P2 or FFP2.

Hand protection: Waterproof gloves, e.g. PVC, nitrile, rubber.

Eye protection: Chemical goggles, safety glasses with side shields or face shield.

Skin protection: Chemical resistant coveralls and closed in boots.

General hygiene: Do not eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before rest breaks or meals and after work. Wash protective clothing daily after work.

Section 9: Physical and chemical properties

(a)	Appearance:	Pale green granules.
(b)	Odour:	None.
(c)	Odour threshold:	Not available.
(d)	pH:	7.0 (aqueous dilution).
(e)	Melting point/freezing point:	240°C
(f)	Initial boiling point and boiling range:	Not applicable.
(g)	Flash point:	Not applicable.
(h)	Flammability (solid, gas):	Non-flammable.
(i)	Upper/lower flammability or explosive limits:	Not applicable.
(j)	Vapour pressure:	Not available.
(k)	Vapour density:	Not available.
(l)	Bulk density:	625 -649 kg/m3
(m)	Solubility:	1.2 mg/L (copper oxychloride in water).
(n)	Partition coefficient: n-octanol/water:	Not available.
(o)	Auto-ignition temperature:	Not available.

Fruitfed Copper Oxychloride DF

(p) Decomposition temperature:	Not available.
(q) Kinematic viscosity:	Not available

Section 10: Stability and reactivity

Stability of the substance:	Stable under normal conditions of storage and use.
Conditions to avoid:	Avoid temperatures greater than 50°C. Avoid exposure to high moisture conditions for prolonged periods.
Incompatible materials:	Ammonia or acid vapours. Strong acids. Copper is corrosive to aluminium, especially in aqueous date and at elevated temperatures.
Hazardous decomposition products:	Not known to occur.

Section 11: Toxicological information

	Toxicity classifications determined by assessment of the components in the formulated mixture.
(i) Acute toxicity:	Classified as harmful if ingested, by dermal absorption or by inhalation. Symptoms may include headache, nausea and vomiting.
(ii) Aspiration hazard:	Not classified as aspirant hazard.
(iii) Respiratory irritation:	Not classified.
(iv) Skin corrosion / irritation:	May be mildly irritating to skin
(v) Serious eye damage / irritation:	Causes serious eye irritation.
(vi) Respiratory or skin sensitisation:	Copper oxychloride identified as contact sensitiser.
(vii) Germ cell mutagenicity:	Not classified for mutagenic effects.
(viii) Carcinogenicity:	Not classified for carcinogenic effects.
(ix) Reproductive toxicity:	Not classified for fertility or developmental effects.
(x) Specific organ toxicity:	May cause damage to organs: kidneys, liver and stomach through prolonged or repeated exposure.
(xi) Narcotic effects:	Not classified for narcotic effects.
Toxicological information for copper oxychloride:	Oral LD_{50} (rat) 700 – 800 mg/kg bodyweight

Section 12: Ecological information

	Ecotoxicological classifications determined by assessment of the components in the formulated mixture.
Aquatic toxicity:	Very toxic to aquatic life and with long lasting effects.
Soil environment:	Not classified.
Terrestrial vertebrate toxicity:	Harmful to terrestrial vertebrates.
Terrestrial invertebrate toxicity:	Not classified.
Persistence and degradability:	Copper oxychloride degrades but copper is persistent in environment.
Potential to be bioaccumulative:	Has not been identified as bioaccumulative.

Fruitfed Copper Oxychloride DF

Mobility in soil:	Product forms dispersion in water. Copper is expected to strongly bind to soil / organic matter so mobility deeper into soil depth is unlikely.
Ecotoxicological information for copper oxychloride:	*Gambusia affinis* (western mosquito fish) EC_{50} (96h) 1.450–2.12 mg/L *Daphnia magna* EC*50* (48h) 0.014 mg/L
Section 13: Disposal considerations	
Product disposal:	Dispose of this product only by using according to the label or through Agrecovery chemical disposal or to an approved landfill.
Container disposal:	Recycle through Agrecovery if possible. Alternatively, crush and bury in an approved landfill. Do not use container for any other purpose. Avoid contamination of any water supply or stream with product or empty container.
Section 14: Transport information	
UN Number:	UN 3077
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER OXYCHLORIDE 84%)
UN Class:	9
Packing group:	III
Subsidiary risk:	-
HAZCHEM:	2Z
Environmental hazards:	Marine pollutant
Special precautions:	This product is classified as a Dangerous Good. Consult the Land Transport Rule: Dangerous Goods 2005 and NZS 5433: 2020 Transport of Dangerous Goods on Land for more information.
Section 15: Regulatory information	
HSNO:	Approved substance under the HSNO Act 1996.
HSNO approval number:	HSR000740; Water dispersible granule or Wettable powder containing 500 – 800 g/kg copper as copper oxychloride.
Tolerable exposure limit / environmental exposure limit:	None set
HSNO controls:	See www.epa.govt.nz
ACVM:	Registered under the Agricultural Compounds Veterinary Medicines Act 1997.
ACVM registration number:	P5346
Conditions of registration:	See www.foodsafety.govt.nz

Fruitfed Copper Oxychloride DF

Section 16: Other information	
Date of issue:	13 September 2024
Reason for reissue:	Update to GHS7
Replaces:	SDS issued on 27/03/2020
Information references:	Supplier Safety Data Sheet NZ EPA Approved hazardous substances with controls Workplace Exposure Standards and Biological Exposure Indices
Abbreviations:	ACVM: Agricultural Chemicals and Veterinary Medicines Group HSNO: Hazardous substances and New Organisms Act 1996 (HSNO Act) EPA: Environmental Protection Authority of New Zealand CAS Number: Chemical Abstracts Service Number LD50: Lethal Dose 50% (Population) LC50: Lethal Concentration 50% (Population) WES-TWA: Workplace exposure standards – Time-weighted average WES-STEL: Workplace exposure standards – Short-term exposure limit BEI: Biological Exposure Indices WES: Workplace Exposure Standards
Personal Protection Standards:	The following Standards provide general advice regarding safety clothing and equipment: Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**

The data provided in this safety data sheet is based on current knowledge and experience. The purpose of this document is to describe the product in terms of its safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.