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Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Safety Data Sheet
FARMCHLOR CHLORINATOR RODS

Classified as: Hazardous according to the EPA Hazardous Substances (Hazard Classifications) Notice 2020.

Section 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name: Farmchlor Chlorinator Rods

Supplier: FIL is a wholly owned subsidiary of
GEA Farm Technologies New Zealand Ltd

Address: 72 Portside Drive
Mt Maunganui 3116
New Zealand

Phone: +64 7 575 2162

Website: www.fil.co.nz

Recommended Use: Water sanitiser

In Case of Emergency Contact:

CHEMCALL: 0800 CHEMCALL (243 622)

Section 2: HAZARDS IDENTIFICATION

Classified as a Dangerous Good for Transport.

Classified as hazardous according to criteria in the EPA Hazardous Substances (Hazard Classifications) Notice 2020.

HSNO APPROVAL NUMBER: **HSR002591**

HSNO CLASSIFICATIONS: 5.1.1B – Oxidising solid
6.1D – Acutely toxic, oral
8.1A – Corrosive to metals
8.2C – Corrosive to skin
8.3A – Corrosive to eyes
9.1A – Very ecotoxic in the aquatic environment, acute
9.1A – Very ecotoxic in the aquatic environment, chronic

GHS Classification: Oxidising solid – Category 2
Acute toxicity, oral – Category 4
Corrosive to metals – Category 1
Skin corrosion – Category 1C
Serious eye damage – Category 1
Hazardous in the aquatic environment (acute) – Category 1
Hazardous in the aquatic environment (chronic) – Category 1

Hazard Statements:

H272 May intensify fire; oxidiser

H302 Harmful if swallowed
H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long-lasting effects

GHS Pictograms:

DANGER

PREVENTION STATEMENTS:

P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/hot surfaces. No smoking.
P220 Keep/Store away from clothing, wood, paper, cardboard, and other combustible materials.
P234 Keep only in original container.
P260 Do not breathe powder/dust.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

RESPONSE STATEMENTS:

P101 If medical advice is needed, have product container or label at hand.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P321 Specific treatment (see first aid instructions on this label).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.
P370+P378 IN CASE OF FIRE: Use water fog or spray, or dry chemical powder to extinguish.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.

STORAGE:

P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

DISPOSAL:

P501 - In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Dispose of via an approved waste disposal contractor. Refer to Section 13 of the SDS.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture: Water sanitising rods

Main Component	CAS Number	Concentration (%wt)
Calcium Hypochlorite	7778-54-3	60-80%
Calcium Chloride	10043-52-4	0-5%
Calcium Hydroxide	1305-62-0	0-4%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4: FIRST AID MEASURES

Workplace Facilities Required: Eye wash and safety shower facilities should be provided.

If Inhaled: Remove to fresh air. Seek medical attention if symptoms persist.

In Contact with Eye: Hold eyes open, flush continuously with water for at least 20 minutes. Seek immediate medical attention. Continue flushing until told to stop by a medical professional.

In Contact with Skin: Remove contaminated clothing. Wash skin with plenty of water. Seek immediate medical attention. Wash contaminated clothing before reuse.

If Swallowed: DO NOT INDUCE VOMITING. Rinse mouth. Give small quantities of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention. If vomiting occurs, keep head below hips to prevent aspiration to lungs. If breathing stops give mouth to nose resuscitation.

Advice to Doctor: Treat symptomatically. Product is corrosive and a strong oxidant and exposure to skin or eye is likely to cause burns. Ophthalmological opinion should be sought for burns to eyes.

Section 5: FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Product is not flammable or combustible. Product is an oxidiser and will contribute oxygen to a fire. May intensify a fire. Avoid contamination of waterways.

Suitable Extinguishing Media: Water fog or spray, dry chemical powder.

Precautions in Connection with Fire: May release toxic fumes including chlorine.

Advice for firefighters: Wear full firefighting gear and self-contained breathing apparatus.

Section 6: ACCIDENTAL RELEASE MEASURES

An emergency response plan meeting the requirements of Part 5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 is required when held in quantities greater than 100kg.

Precautions:	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Avoid release to the environment. Remove any sources of ignition.
Suitable Protective Equipment:	Emergency responders should use personal protective equipment, including gloves, protective clothing, and safety goggles. Respiratory protection may be required if dust is generated.
Spill or Leak Procedures.	Clean up spill using suitable inert, non-combustible material and collect into a properly labelled waste container for disposal. Do not use metal containers. Residual quantities may be washed away with water.
Waste Disposal Methods:	Dispose of as per Section 13.
Emergency preparation:	Ensure there is appropriate and adequate personal protective equipment, trained personnel and clean up materials for management of accidental release.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid contact with skin, eyes, and clothing. Do not allow product to accumulate on clothing. Avoid generating and inhaling dust. Keep away from sources of ignition and incompatible substances and materials. Users should take care that Class 5 oxidising material is not accidentally transported into other areas where there may be incompatible materials or ignition sources via contaminated PPE. Do not eat drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.
Storage:	Store locked up. Store in original container. Keep out of reach of children. Keep away from heat and direct sunlight. Do not store with incompatible materials or combustible materials. Do not store with food or animal feed products.
Site Storage Requirements:	Site Signage will be required when quantities exceed 100kg.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ:	No Workplace Exposure Standards have been established for this product. A Workplace Exposure Standard has been set for the following ingredient: Calcium Hydroxide: TWA 1 mg/m^3, STEL 4 mg/m^3
Engineering Controls:	Eyewash facilities and safety showers should be provided in the work area where there is a risk of exposure to eyes and skin. Natural ventilation should be adequate under normal conditions of use. Avoid generating dust.
Personal Protective Equipment:	Observe good chemical hygiene practice.
Hand protection:	Wear elbow length PVC gloves. Refer to Australian and New Zealand Standard AS/NZS 2161 for protective gloves.
Skin and body protection:	Wear synthetic clothing. Avoid natural fibre clothing such as cotton, rayon, or wool. Wear protective clothing and PVC apron. Use long-sleeved protective clothing. Remove any contaminated clothing to avoid prolonged contact with the skin. Wash work clothes regularly. Refer to Australian and New Zealand Standard AS/NZS 4501 for occupational protective clothing.
Eye protection:	Use chemical resistant safety goggles. Refer to AS/NZS 1336 and 1337 for suitable eye and face protection.

Respiratory protection: Not normally required under typical use conditions. If dust is generated select a suitable respirator with a particulate filter.

Other information: PPE selected must be impervious to the substance. Do not eat, smoke, or drink where material is handled, processed, or stored. Wash hands carefully before eating, drinking, or smoking. Handle in accordance with safe industrial hygiene practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	**Colour:**	White
Odour:	Odourless	**Odour Threshold:**	Not applicable
pH:	10.5-11.5 (10 g/L)	**Solubility:**	~20% in water
Melting/Freezing Point:	Not available	**Boiling Point:**	Not available
Flash Point:	Not applicable	**Flammability:**	Not flammable
Upper/Lower Flammability Limits:	Not applicable	**Vapour Pressure:**	Not applicable
Vapour Density:	Not applicable	**Relative Density:**	1.9
Partition Coefficient:	Not available	**Auto-ignition Temperature;**	Not applicable
Decomposition Temperature:	Not available	**Kinematic Viscosity:**	Not available
Particle Characteristics:	Not available		

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Reactivity: Reaction with water is highly exothermic. Produces an exothermic reaction with acids. Reaction products may include chlorine which is highly toxic.

Conditions to Avoid: Avoid moisture contamination. Avoid heat and direct sunlight. Avoid generating dust.

Incompatibility: Keep away from strong acids, metals, ammonium compounds, cyanides, nitro compounds, phenols, combustible organic materials, flammable materials.

Hazardous Decomposition: May decompose on heating to release toxic fumes including chlorine.

Section 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity: LD50 oral > 300 - ≤ 2000 mg/kg.
LD50 dermal > 5000 mg/kg
LC_{50} inhalation (mist/spray) > 5.0 mg/L

Inhalation: Not an expected route of exposure during normal conditions of use.

Ingestion: Harmful if swallowed. May cause nausea, vomiting. May cause irritation or burns to mouth and surrounding tissue.

Skin Corrosion/Irritation: Corrosive to skin. May cause severe skin burns.

Serious Eye Damage/Eye Irritation: Corrosive to eyes. May cause serious eye damage and corneal burns.

Respiratory or Skin Sensitisation: Not known to cause respiratory or contact sensitisation.

Chronic Exposure:

Mutagen/Carcinogen/Reproductive Toxicant No chronic toxicity effects expected.

Specific Target Organ Toxicity Single Exposure: No information available. No known effects.

Specific Target Organ Toxicity Repeated Exposure: No information available. No known effects.

Aspiration Hazard: No information available. Not expected to be an aspiration hazard.

Toxicity data is based on hazardous ingredient information and information in the EPA Chemical Classification and Identification Database.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Very ecotoxic in the aquatic environment with short-term and long-term effects. Product is designed for water sanitation.

$LC/EC_{50} < 1$ mg/L

Persistence/degradability: Expected to be readily biodegradable.

Bioaccumulation: No information available.

Mobility in soil: No information available.

Other adverse effects: None identified.

Ingredients with Ecotoxic classifications: Calcium hypochlorite has been classified as very toxic in the aquatic environment with both short-term and long-term effects.

Ecotoxicity data is based on information in the EPA Chemical Classification and Identification Database.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Adjust the pH to neutral and separate any insoluble solids or liquids and package them for hazardous waste disposal. Flush the aqueous solutions down the drain with plenty of water. The hydrolysis and neutralization reactions may generate heat and fumes which can be controlled by the rate of addition.

Keep records of date, time, quantity & location of discharge, name & address of user.

Dispose of waste insoluble product via an approved waste disposal contractor.

Disposal of Packaging: Dispose of packaging via an approved waste disposal contractor. Triple rinse containers when empty. Add rinsate to use solutions.

Avoid contamination of natural water supplies with the product or empty container.

After cleaning, all existing labels should be removed.

Section 14: TRANSPORT INFORMATION

Classified as a Dangerous Good for transport in accordance with NZS5433:2020, IMDG or IATA.

NZS5433:2020
UN No: 2880
Proper Shipping Name: Calcium Hypochlorite hydrated mixture
Class: 5.1
Packing Group: II
Hazchem Code: 1W
Environmentally hazardous: Yes
Limited Quantities: 1 kg

IMDG:
UN No: 2880
Proper Shipping Name: Calcium Hypochlorite hydrated mixture
Class: 5.1
Packing Group: II
Marine Pollutant: Yes
EmS: F-H, S-Q
Limited Quantities: 1 kg

IATA:
UN No: 2880
Proper Shipping Name: Calcium Hypochlorite hydrated mixture
Class: 5.1
Packing Group: II
Environmental hazard: Yes

Ensure transportation methods prevent leakage from packages and collapsing loads.

Section 15: REGULATORY INFORMATION

Group Standard Allocation:	Cleaning Products (Oxidising Liquids and Solids, Corrosive) Group Standard 2020
HSNO Approval Code:	HSR002591
Classifications:	Oxidising solid – Category 2 Corrosive to metals – Category 1 Acute toxicity, oral – Category 4 Skin corrosive – Category 1C

Serious eye damage – Category 1
Hazardous in the aquatic environment, acute – Category 1
Hazardous in the aquatic environment, chronic – Category 1

NZ Inventory of Chemicals:

All ingredients are listed in the NZ Inventory of Chemicals.

This substance triggers:

Compliance Certificate	500 kg
Certified Handler	N/A
Emergency Response Plan	100 kg
Secondary Containment	Not applicable
Signage	100 kg

This substance is not required to be Tracked. All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

Section 16: OTHER INFORMATION

The information provided in this Safety Data Sheet relates only to the specific material designated herein. This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

This substance is approved under HSNO for use as a water sanitiser. All reasonable care has been taken to ensure that the information and advice contained herein are from sources believed to be reliable and to represent the most up-to-date knowledge available at the date given in Section 16. No liability is assumed for any damages related to the use or misuse of this substance.

All chemical materials may present unknown hazards as people have varying degrees of sensitivity to chemicals. Therefore, this product should be used with caution. The information herein is given in good faith, but no warranty, express or implied is made.

SDS Issued: 6/03/2024

Supersedes: 31/07/2019

Reason for Revision: 5-year review and update.

References:

EPA NZ Chemical Classification and Information Database
EPA Guide: Guide to Classifying Hazardous Substances in New Zealand, Version 1

Summary of Abbreviations: EPA – Environmental Protection Authority
GHS – Global Harmonisation System
CAS – Chemical Abstracts Service
TWA – Time Weighted Average

END OF SAFETY DATA SHEET