Date of issue: 26 March 2024

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

Safety Data Sheet
DIOXISHIELD PART A (ACTIVATOR)

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

Section 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name:	Dioxishield Part A
Other Names:	Dioxishield Activator, FIL Citric Acid Activator
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:	Add to sodium chlorite teat spray base to create chlorine dioxide

In Case of Emergency Contact:

CHEMCALL:	0800 CHEMCALL (243 622)

Section 2: HAZARDS IDENTIFICATION

Not 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: **HSR100759**

HSNO CLASSIFICATIONS: 8.3A – Corrosive to eyes

GHS Classification: Serious eye damage – Category 1

Hazard Statements:

H318 Causes serious eye damage

GHS Pictograms:

DANGER

PREVENTION STATEMENTS:

P102 Keep out of reach of children.
P103 Read Label before use.
P280 Wear protective gloves and eye/face protection.

RESPONSE STATEMENTS:

P101 If medical advice is needed, have product container or label at hand.
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.

STORAGE: None

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: Acid component of 2-component chlorine dioxide mix.

Main Component	CAS Number	Concentration (%wt)
Citric acid	77-92-9	3 - 10%

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: Wash skin with plenty of water. Seek medical attention if skin irritation develops and persists.

If Swallowed: DO NOT INDUCE VOMITING. Rinse mouth. Give small quantities of water. Never give anything by mouth to an unconscious person. Seek medical attention if symptoms develop and persist. If vomiting occurs, keep head below hips to prevent aspiration to lungs.

Advice to Doctor: Treat symptomatically. Ophthalmological opinion should be sought for burns to eyes.

Section 5: FIRE FIGHTING MEASURES

Fire/Explosion Hazard:	Product is not flammable or combustible.
Suitable Extinguishing Media:	Use extinguisher suitable for surrounding environment and materials.
Precautions in Connection with Fire:	Decomposes on heating to emit toxic fumes.
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 10,000L.

Precautions:	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area.
Suitable Protective Equipment:	Emergency responders should use personal protective equipment, including gloves and safety glasses. Respiratory protection is not normally required.
Spill or Leak Procedures.	Absorb the spill with suitable absorbent material (sand, earth, vermiculite) and collect into a properly labelled waste container for disposal. 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 and eyes. Do not eat drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.
Storage:	Store in a closed container. Keep away from heat and direct sunlight.
Site Storage Requirements:	Site Signage will be required when quantities exceed 1,000L.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ:	No Workplace Exposure Standards have been established for this product.
Engineering Controls:	Eyewash facilities should be provided in the work area where there is a risk of exposure to eyes. Natural ventilation should be adequate under normal conditions of use.
Personal Protective Equipment:	Observe good chemical hygiene practice.

Hand protection: Wear protective gloves to avoid product getting on hands and possible transfer to eyes. Refer to Australian and New Zealand Standard AS/NZS 2161 for protective gloves.

Skin and body protection: Protective clothing is recommended if handling large quantities. Refer to Australian and New Zealand Standard AS/NZS 4501 for occupational protective clothing.

Eye protection: Use safety glasses with side shields or safety goggles to protect eyes. Refer to AS/NZS 1336 for suitable eye and face protection.

Respiratory protection: Not normally required under typical use conditions.

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:	Liquid	**Colour:**	Yellow
Odour:	Odourless	**Odour Threshold:**	Not applicable
pH:	3.2	**Solubility:**	Completely miscible
Melting/Freezing Point:	Not available	**Boiling Point:**	Not available
Flash Point:	Not applicable	**Flammability:**	Not flammable
Lower/Upper Flammability Limits:	Not applicable	**Vapour Pressure:**	Not applicable
Vapour Density:	Not applicable	**Relative Density:**	1.08
Partition Coefficient:	Not available	**Auto-ignition Temperature;**	Not applicable
Decomposition Temperature:	Not available	**Kinematic Viscosity:**	Not available
Particle Characteristics:	Not applicable		

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions.

Reactivity: Will react exothermically with alkalis.

Conditions to Avoid: High temperatures, incompatible materials. Avoid generating mists/sprays.

Incompatibility: Keep away from strong oxidisers, strong alkalis, powdered metals, and iron-containing compounds.

Hazardous Decomposition: May decompose on heating to emit toxic fumes.

Section 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity: LD50 oral > 5000 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:	Not expected to be harmful if swallowed.
Skin Corrosion/Irritation:	Not expected to be a skin corrosive or irritant.
Serious Eye Damage/Eye Irritation:	Eye corrosive. May cause 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:	Not expected to be ecotoxic in the aquatic environment.
	LC/EC_{50} > 100 mg/L
Persistence/degradability:	Not available.
Bioaccumulation:	Not available
Mobility in soil:	No information available.
Other adverse effects:	None identified.
Ingredients with Ecotoxic classifications:	There are no ingredients that have ecotoxic classifications.
	Ecotoxicity data is based on information in the EPA Chemical Classification and Identification Database.

Section 13: DISPOSAL CONSIDERATIONS

Disposal:	Recycle and reuse wherever possible. Dispose of waste 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 rinse solution 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

Not classified as a Dangerous Good for transport in accordance with NZS5433:2020, IMDG or IATA.

Ensure transportation methods prevent leakage from packages and collapsing loads.

Section 15: REGULATORY INFORMATION

Group Standard Allocation: Veterinary Medicines (Non-dispersive, Open System Application) Group Standard 2020.

HSNO Approval Code: HSR100759

Classifications: Serious eye damage – Category 1

NZ Inventory of Chemicals: All ingredients are listed in the NZ Inventory of Chemicals.

This substance triggers:

Compliance Certificate	N/A
Certified Handler	N/A
Emergency Response Plan	10,000L
Secondary Containment	10,000L
Signage	1,000L

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 veterinary medicine. 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: 26/03/2024

Supersedes: 9/08/2019

Reason for Revision: 5-year review and update. Change to approval number and now assigned to a Group Standard.

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

END OF SAFETY DATA SHEET