

Date of issue: 26 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Safety Data Sheet

DIOXISHIELD PART B (BASE)

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

Section 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name: Dioxishield Part B

Other Names: Dioxishield Base, FIL Sodium Chlorite Base

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: Teat sanitiser (after activation)

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: **HSR100759**

HSNO CLASSIFICATIONS: 6.8A – Known or presumed reproductive or developmental toxicant
 6.9B – Harmful to human target organs or systems, repeated exposure
 8.2B – Skin corrosive
 8.3A – Eye corrosive
 9.1A – Very ecotoxic in the aquatic environment, acute
 9.1A - Very ecotoxic in the aquatic environment, chronic

GHS Classification: Reproductive toxicity – Category 1
 Specific target organ toxicity (repeated exposure) – Category 2
 Skin corrosion – Category 1B
 Serious eye damage – Category 1
 Hazardous in the aquatic environment, acute – Category 1
 Hazardous in the aquatic environment, chronic – Category 1

Date of issue: 26 March 2024
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Hazard Statements:

- H360 May damage fertility or the unborn child
- H373 May cause damage to organs (blood, hematopoietic system) through prolonged or repeated exposure via ingestion.
- 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.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist/spray.
- P264 Wash hands, exposed skin thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing, and eye/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.
- P308 + P313 If exposed or concerned: Get medical advice/attention.
- P391 Collect spillage.

STORAGE:

- P405 Store locked up.

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.

Date of issue: 26 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture: Base component of 2-component chlorine dioxide mix.

Main Component	CAS Number	Concentration (%wt)
Sodium chlorite	7758-19-2	> 3 - 5%

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.
Advice to Doctor:	Treat symptomatically. Product is corrosive to skin and eyes and may cause breathing difficulties and burns to mouth and throat. Product is alkaline and may continue to cause damage several hours after exposure. 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 electrical conductor, isolate power.
Suitable Extinguishing Media:	Use water spray or fog, foam, dry chemical powder, or carbon dioxide.
Precautions in Connection with Fire:	May give off toxic and corrosive fumes in a fire.
Advice for firefighters:	Wear full firefighting gear and self-contained breathing apparatus. Prevent spills from entering drains and water courses.

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 100L.

Precautions:	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Avoid generating mist/spray. Isolate power, remove
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Date of issue: 26 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

any electrical sources. Avoid release to the environment.

Suitable Protective Equipment: Emergency responders must use personal protective equipment, including gloves, protective overalls and footwear, safety goggles or face shield and respiratory protection if there is a risk of inhaling mist/spray.

Spill or Leak Procedures. Contain the spill. Absorb using non-combustible, inert absorbent (sand, earth). Collect spilled material and place in a suitable, clean, chemical waste container. Ensure waste container is properly labelled.

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. Avoid generating mist/spray. Do not eat drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.

Storage: Keep out of reach of children. Store locked up. Keep away from heat and direct sunlight. Store away from food and animal feed.

Site Storage Requirements: Site Signage will be required when quantities exceed 100L.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ: No Workplace Exposure Standards have been established for this product.

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. Use in a well-ventilated area. If natural ventilation is insufficient consider engineering controls such as local exhaust ventilation to ensure workers are not exposed to levels exceeding the exposure standards.

Personal Protective Equipment: Observe good chemical hygiene practice.

Hand protection: Wear protective gloves that are resistant to the product, e.g. PVC. Gloves should be elbow length. Refer to Australian and New Zealand Standard AS/NZS 2161 for protective gloves.

Skin and body protection: Use protective overalls and PVC apron. 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 safety goggles to protect eyes. Refer to AS/NZS 1336 for suitable eye and face protection.

Respiratory protection: Where there is inadequate ventilation and use results in the formation of mist/spray, use a respirator. Refer to AS/NZS 1715 and AS/NZS 1716 for suitable respiratory protection.

Date of issue: 26 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

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:	Blue
Odour:	Odourless	Odour Threshold:	Not applicable
pH:	12	Solubility:	Fully 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 available
Vapour Density:	Not available	Relative Density:	1.01
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:	Reacts exothermically with acids. Reaction with acids produces chlorine dioxide.
Conditions to Avoid:	Avoid generating mist/spray. Avoid excessive heat. Avoid contact with electricity.
Incompatibility:	Incompatible with strong oxidisers, acids, and organic compounds.
Hazardous Decomposition:	Decomposition may result in formation of toxic and corrosive fumes.

Section 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity:	LD50 oral > 5000 mg/kg. LD50 dermal > 5000 mg/kg LC ₅₀ inhalation (mist) > 5.0 mg/L
Inhalation:	Inhalation of large volumes of mist/spray may cause irritation to mucous membranes.
Ingestion:	Ingestion may cause chemical burns to mouth and gastrointestinal tract and may cause nausea, diarrhoea, and vomiting.
Skin Corrosion/Irritation:	Corrosive to skin. May cause skin burns.
Serious Eye Damage/Eye Irritation:	Corrosive to eyes. May cause corneal burns.
Respiratory or Skin Sensitisation:	Not known to cause respiratory or contact sensitisation.

Date of issue: 26 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Chronic Exposure:

Mutagen/Carcinogen/Reproductive Toxicant Known to be a reproductive or developmental toxicant. Not expected to be carcinogenic or mutagenic.

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

Specific Target Organ Toxicity Repeated Exposure: Harmful to human target organs or systems (blood, hematopoietic system) through prolonged or repeated exposure via ingestion.

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 both acute and chronic effects. Avoid losses to the environment wherever possible.

LC/EC₅₀ < 1 mg/L

Persistence/degradability: Not available.

Bioaccumulation: Not available

Mobility in soil: No information available.

Other adverse effects: None identified.

Ingredients with Ecotoxic classifications: Sodium chlorite >3-5% has been independently classified by EPA NZ as very ecotoxic in the aquatic environment with both acute and chronic effects.

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

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Do not allow product to enter drains or waterways. Recycle and reuse wherever possible. Waste product may be treated with dilute acid prior to disposal so it is no longer hazardous. Neutralisation must be carried out in a well-ventilated area. Dispose of waste product via an approved waste disposal contractor.

Disposal of Packaging: Packaging may contain product residues and should be treated as hazardous. Where possible return to supplier for reuse/recycling. Dispose of packaging via an approved waste disposal contractor.

Section 14: TRANSPORT INFORMATION

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

Date of issue: 26 March 2024
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NZS5433:2020
 UN No: 1908
 Proper Shipping Name: Chlorite solution
 Class: 8
 Packing Group: II
 Environmental hazard: Yes
 Limited Quantity: 1 L
 Hazchem Code: 2X

IMDG:
 UN No: 1908
 Proper Shipping Name: Chlorite solution
 Class: 8
 Packing Group: II
 Marine Pollutant: Yes
 EmS: F-A, S-B
 Limited Quantity: 1 L

IATA:
 UN No: 1908
 Proper Shipping Name: Chlorite solution
 Class: 8
 Packing Group: II
 Environmental hazard: Yes

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:	Reproductive toxicity – Category 1 Specific target organ toxicity (repeated exposure) – Category 2 Skin corrosion – Category 1B 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	250 L
	Certified Handler	N/A

Date of issue: 26 March 2024
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Emergency Response Plan	100 L
Secondary Containment	100 L
Signage	100 L

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 teat 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: 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