

SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product: **MS Di-o-clean Powder Solution**
Product Use: Water treatment chemical
Restriction of Use: Refer to Section 15

New Zealand Supplier: **AnQuip NZ Ltd**
Address: 664 Shands Rd
R D 6, Christchurch
New Zealand

Telephone: +64 3 344 6136
Fax: +64 3 344 6135
Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 25 July 2024 v2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: Water Treatment Chemicals (subsidiary) – HSR002684

Pictograms



Irritant

Ecotoxic

Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Hazardous to the aquatic environment chronic Cat. 2	H411	Toxic to aquatic life with long lasting effects.
Hazardous to soil organisms.	H423	Hazardous to soil organisms.

Prevention Code	Prevention Statement
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P391	Collect spillage.

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/attention.

Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Chlorine Dioxide	0.1 – 0.5	10049-04-4

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on Skin	Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	Not applicable.
Inhalation:	Not applicable.
Dermal:	Not applicable.
Skin:	Not applicable.
Eye:	Causes serious eye irritation.

Section 5. Fire Fighting Measures

Hazard Type	None Flammable.
Hazards from combustion products	None known.
Suitable Extinguishing media	CO2 , foam, powder, sprayed water
Precautions for firefighters and special protective clothing	Wear full protective gear.
HAZCHEM CODE	3Z

Section 6. Accidental Release Measures

Product Name: MS Di-o-clean Powder Solution
Date of SDS: 25 July 2024

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel. Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up wind. Remove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

Do not allow to enter drains and water courses.

Contain released substance, store into suitable containers. If possible, remove by using absorbent material. Dispose of in compliance with local and/or national regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep container tightly closed, frost free in ventilated room.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Chlorine dioxide [10049-04-4]	0.1	0.28		

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2023 14TH EDITION.

Engineering Controls

Ensure adequate ventilation is available.

Personal Protection Equipment



Eyes	Tight-fitting safety goggles. Wear a face shield and protective suit in case of exceptional processing problems. Keep an eye-rinse bottle within reach.
Hands	Wear nitril-gloves (EN 374). Breakthrough time: >480' Material thickness: 0,35 mm. Thoroughly check gloves before use. Take of the gloves properly without touching the outside with your bare hands. The manufacturer of the protective gloves has to be consulted about the suitability for a specific work station. Wash and dry your hands.
Skin	Impermeable clothing. The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.
Respiratory	Respiratory protection is not required. Use ABEK type gas masks in case of irritating exposure. If necessary, use with sufficient exhaust ventilation.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	Not available
Odour	Characteristic
Odour Threshold	Not available
pH	3.0
Boiling Point	100°C
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	2 332 Pa @ 20°C
Vapour Density	Not available
Relative Density (20°C)	1.0010 kg/l
Water Solubility	Completely soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity, 40°C	1 mm ² /s
Dynamic Viscosity, 20°C	1 mPa.s
Particle Characteristics	Not available
Evaporation Rate (n-BuAc=1)	0.300

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions. Extremely high or low temperatures.
Possibility of hazardous reactions	Not available
Conditions to Avoid	Protect from sunlight and do not expose to temperatures exceeding + 50°C.
Incompatible Materials	None known.
Hazardous Decomposition Products	Doesn't decompose with normal use

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe eye irritation.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.

STOT/RE	Not applicable.
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Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Chlorine Dioxide	93.86 mg/kg (rat)	≥5000 mg/kg (Rabbit)	≥50 mg/L(Rat)

Section 12. Ecotoxicological Information

Toxic to aquatic life with long lasting effects.
Hazardous to soil organisms.

Product:	
Persistence and degradability	No data available
Bioaccumulation	Log Pow = -3,22
Mobility in Soil	Solubility in water: completely soluble
Other adverse effects	No data available

Individual component information (Please refer to www.epa.govt.co.nz for full details):

Chlorine Dioxide (Cas No 10049-04-4):

Route	Species	Duration	Value LC50/EC50
Aquatic, fish	Brachydanio rerio	96 hr	0.021 mg/L
Aquatic, Crustacean	Daphnia magna (Water flea)	48 hr	0.063 mg/L
Aquatic, Algal	Pseudokirchneriella subcapitata	72 hr	EC50 1,096 mg/L NOEC 0.02 mg/L

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse and dispose of according to Local Regulations. Treat rinsate as a hazardous substance and dispose of accordingly. Ensure any waste, rinsate, or contaminated spill media is labelled with an appropriate waste identifier, likely hazard statements and pictograms (Ecotoxic), and business contact details.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

EPA Approval Code: Water Treatment Chemicals (subsidiary) – HSR002684

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L
Emergency Response Plan	1000L
Secondary Containment	1000L
Restriction of Use	Only use for the intended purpose.

Section 16	Other Information
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Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2023 14th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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