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 Component A**
Product Use:	Water treatment chemical precursors
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: Oxidising Liquids and Solids (Acutely Toxic) – HSR002634

Pictograms

Oxidising Toxic Irritant Chronic Ecotoxic

Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Oxidising solids Cat. 2	H272	May intensify fire oxidiser.
Acute dermal toxicity Cat. 2	H310	Fatal in contact with skin.
Acute inhalation toxicity Cat. 2	H330	Fatal if inhaled.
Acute oral toxicity Cat. 3	H301	Toxic if swallowed.
Skin irritation Cat. 2	H315	Causes skin irritation.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Reproductive toxicity Cat. 1	H360	May damage fertility or the unborn child.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Cat. 1	H410	Very toxic to aquatic life with long lasting effects.

Hazardous to soil organisms.	H421	Hazardous to soil organisms
Hazardous to terrestrial vertebrates.	H432	Hazardous to terrestrial vertebrates

Prevention Code	Prevention Statement
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.
P210	Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P220	Keep/Store away from clothing or incompatible materials.
P260	Do not breathe dust.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P284	Wear respiratory protection.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Gently wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P361+P364	Take off immediately contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use CO2, foam, powder, sprayed water for extinction.

Storage Code	Storage Statement
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

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

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Sodium chlorite	>30	7758-19-2

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	Take off contaminated clothing and wash before re-use. Gently wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Do not induce vomiting. 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:	Toxic if swallowed. Caustic, lack of breath, vomiting, blisters on lips and tongue, burning pain in mouth and throat, gullet and stomach.
Inhalation:	Fatal if inhaled. Headache, dizziness, nausea, drowsiness, unconsciousness.
Dermal:	Fatal in contact with skin.
Skin:	Causes skin irritation (caustic, redness, pain).
Eye:	Causes serious eye irritation (caustic, redness, bad looking, pain).
Chronic:	May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Oxidisers
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	**1Y**

Section 6. Accidental Release Measures

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.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames, hot surfaces. No smoking.

- Keep/Store away from clothing or incompatible materials.
- Take any precaution to avoid mixing with combustibles.
- Do not breathe dust.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.
- Wear respiratory protection.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm	TWA mg/m^3	STEL ppm	STEL mg/m^3

No ingredients have exposure limits

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 nitrile-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	Use with sufficient exhaust ventilation. If necessary, use an air-purifying face mask in case of respiratory hazards. Use the ABEK type as protection against these troublesome levels.
General	

Section 9 Physical and Chemical Properties

Appearance	Solid
Colour	Not available
Odour	Characteristic
Odour Threshold	Not available

pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Not available
Water Solubility	Completely soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

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	Toxic if swallowed. Caustic, lack of breath, vomiting, blisters on lips and tongue, burning pain in mouth and throat, gullet and stomach. Calculated acute toxicity(oral), ATE oral:346.793 mg/kg
Dermal	Fatal in contact with skin. Calculated acute toxicity(dermal), ATE 166.385 mg/kg
Inhalation	Fatal if inhaled. Headache, dizziness, nausea, drowsiness, unconsciousness.
Eye	Causes serious eye irritation (caustic, redness, bad looking, pain).
Skin	Causes skin irritation (caustic, redness, pain).

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	May damage fertility or the unborn child.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs (oral) through prolonged or repeated exposure.

Individual component information:
Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Sodium Chloride	165 mg/kg (rat)	134 mg/kg (Rabbit)	0.23 mg/L(Rat)

Section 12. Ecotoxicological Information

Very toxic to aquatic life with long lasting effects
Hazardous to soil organisms
Hazardous to terrestrial vertebrates

Product:	
Persistence and degradability	No data available
Bioaccumulation	No data available
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):
Sodium Chloride (Cas No 7758-19-2):

Route	Species	Duration	Value LC50/EC50
Aquatic, fish	Cyprinodon variegatus (Sheepshead minnow)	96 hr	75 mg/L
Aquatic, Crustacean	Daphnia magna (Water flea)	48 hr	0.0146 mg/L
Aquatic, Algal	Selenastrum capricornutum (Green algae)	96 hr	1.32 mg/L
Bioaccumulative	Not Determined		
Rapidly Degradable	Yes		

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:
Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product or contaminated spill media is labelled "Hazardous Waste – Oxidiser, Toxic, Ecotoxic" and that the label also has the Oxidiser, Toxic, Chronic and Ecotoxic Pictogram, waste type identifier, and the business name, address, and phone number.

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	1479
Class - Primary	5.1
Packing Group	II
Proper Shipping Name	Oxidizing solid, N.O.S. (mixture with sodium chlorite)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 1kg, 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

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

EPA Approval Code: **Oxidising Liquids and Solids (Acutely Toxic) – HSR002634**

(Please refer to www.epa.govt.co.nz for full control details):

HSW (HS) Regulations 2017	**Trigger Quantity**
Certified Handlers	Not required
Location Certificate	250kg
Signage Trigger Quantities (Schedule 3)	100Kg
Emergency Response Plan (Schedule 5)	100Kg
Secondary Containment (Schedule 5)	100Kg
Tracking (Schedule 26)	Any
HSNO Additional Controls (Restrictions of use)	
77A	No person may use this substance described as a pesticide or a veterinary medicine. However, this substance may be used in the formulation of a pesticide or a veterinary medicine. For the purpose of this control— (a) pesticide includes, but is not limited to, a product intended for use as an acaricide, antifouling paint, avicide, fumigant, fungicide, insecticide, herbicide, miticide, molluscicide, piscicide, timber treatment preservative or vertebrate toxic agent (b) veterinary medicine has the same meaning given to it in the Agricultural Compounds and Veterinary Medicines Act 1997.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 2	Certain substances restricted to workplaces only
HPC Notice Part 3	Hazardous substances in a place other than a workplace
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances

Section 16 Other Information

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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