1. Identification of Substance & Company

Product

Product name	Dricon OxiTone™ White
Other names	Tioxide
Product code	NA
HSNO approval	non hazardous
Approval description	NA
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Colourant for cement based products

Company Details

Company	**Dricon Firth Industries**	
Address	810 Great South Road Penrose Auckland, 1060 New Zealand	PO Box 14534 Panmure Auckland, 1741 New Zealand
Telephone	+64-9- 583 2121	
Website	www.dricon.co.nz	

Emergency Telephone Number: 0800-764 766

2. Hazard Identification

Approval

This product is not considered hazardous under the Hazardous Substances and New Organisms Act (HSNO), according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020, if not present as a fine respirable dust.

GHS 7 Classes **Hazard Statement**

none

SYMBOLS

None

Other Classifications

In 2006, the International Agency for Research on Cancer (IARC) classified titanium dioxide in group 2B, as a substance that is "possibly carcinogenic to humans". To date, titanium dioxide has not been assigned any harmonised European classification, under Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, known as the CLP Regulation.

Precautionary Statements

none

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Titanium dioxide	13463-67-7	90-100%
Aluminium oxide	1344-28-1	1-10%
1,1,1-Trimethylolpropane	7799-6	0.1-1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities	Ready access to running water is recommended.

Exposure

Swallowed	IF SWALLOWED: Do NOT induce vomiting. Call a POISON CENTRE or doctor/physician if you feel unwell.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use.
Inhaled	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically.

5. Firefighting Measures

Fire and explosion hazards:	There are no specific risks for fire/explosion for this chemical. It is non-flammable.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam, fog sprays.
Unsuitable extinguishing substances:	Water spray.
Products of combustion:	May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	NA

6. Accidental Release Measures

Containment	There is no current legal requirement for containment of this product.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Wear protective equipment to prevent respiratory exposure. Clear area of any unprotected personnel.
Clean-up method	Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Vacuum or sweep up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Avoid dust creation. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Store unopened in the original containers in a secure compound. Store in a cool, dry, area with sufficient natural/mechanical ventilation to avoid airborne hazards.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of dusts.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m^3 for respirable particulates and 10mg/m^3 for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Titanium dioxide	10mg/m^3	-
	Aluminium oxide	10mg/m^3	-

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if splashes are likely.

Skin If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. Replace frequently. Gloves should be checked for tears or holes before use.

Respiratory Use a respirator when airborne concentrations approach the WES (section 8). If using a respirator, ensure that the cartridges (N95 particulate filter) are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	White fine powder/dust
Odour	no odour
Odour Threshold	no data
pH	6.5-9 (concentration 100g/L)
Freezing/melting point	1800°C
Boiling Point	no data
Flashpoint	no data
Flammability	no data
Upper & lower flammable limits	no LEL or UEL
Vapour pressure	no data
Vapour density	no data
Specific gravity/density	1.1g/cm^3 (bulk density)
Solubility	no data
Partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	no data
Particle Characteristics	no data

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	Reactive with acids. Slightly reactive to reactive with metals, e.g. lithium, aluminium, calcium, magnesium, potassium, sodium and zinc.
Substance Specific Incompatibility	none known
Hazardous decomposition products	none known
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: no effect anticipated. Not considered toxic.
IF IN EYES: not considered an eye irritant.
IF INHALED: see chronic toxicity.
IF ON SKIN: non irritating.
CHRONIC EFFECTS: Titanium dioxide as ultrafine to fine particle sizes: 50 nm to 1.5 µm has been found to be a suspected carcinogen in animal studies (IARC 2B).

Supporting Data

Acute	**Oral**	Titanium dioxide is not considered acutely toxic.
	Dermal	No evidence for dermal toxicity.
	Inhaled	No evidence for acute inhalation toxicity.
	Eye	The substance is not considered to be irritating to the eye.
	Skin	The substance is not considered to be irritating to skin.
Chronic	**Sensitisation**	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	Based on reports in some rodent studies of increased lung tumours after inhalation of titanium dioxide (range of crystalline structures and ultrafine to fine particle sizes: 50 nm to 1.5 µm), the International Agency for Research on Cancer (IARC) has classified titanium dioxide and related polymorphs as 'Possibly carcinogenic to humans (Group 2B)', based on inadequate evidence in humans and limited evidence in animals (IARC, 2010).
	Reproductive / Developmental	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or has any effects on or via lactation.
	Systemic	No ingredient present at concentrations > 1% is considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is not considered ecotoxic.

Supporting Data

Aquatic	No evidence of aquatic ecotoxicity. Estimated EC_{50} of the mixture is >100mg/L,
Bioaccumulation	No data
Degradability	No data
Soil	No evidence of soil ecotoxicity.
Terrestrial vertebrate	No evidence of toxicity towards terrestrial vertebrates.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any hazardous substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007
There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	**Proper shipping name:**	NA
Class(es)	NA	**Packing group:**	NA
Precautions:	NA	**Hazchem code:**	NA

IMDG

UN number:	NA	**Proper shipping name:**	Not regulated
Class(es)	NA	**Packing group:**	NA
Precautions:	NA	**EmS**	NA

IATA

UN number:	NA	**Proper shipping name:**	Not regulated
Class(es)	NA	**Packing group:**	NA
Precautions:	NA	**ERG Guide**	NA

15. Regulatory Information

This substance is not considered to be hazardous under GHS 7. All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	Not required.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Not required.
Certified handler	Not required.
Tracking	Not required.
Bunding and secondary containment	Not required.
Signage	Not required.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	NA
CAS Number	Unique Chemical Abstracts Service Registry Number
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
STOT RE	System Target Organ Toxicity – Repeated Exposure
STOT SE	System Target Organ Toxicity – Single Exposure
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	EU ECHA, Ingredients SDS's, ChemIDplus

Review

Date	**Reason for Review**
June 2018	NA – new SDS
July 2023	update

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS 7 classifications, are based on our experience, EPA Guidelines and international classifications. A compliance record is available on request. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: **+64 21 1040951**.

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