

# SAFETY DATA SHEET



Revision date: 04-Mar-2024

Revision Number 1

## Section 1: Identification

### Product identifier

**Product Name** TITANIUM DIOXIDE (Non-TMP grades)

**Product Code(s)** 000000054610

### Other means of identification

**CAS No.** 13463-67-7

**Synonyms** LR-108; BLR-886.

### Recommended use of the chemical and restrictions on use

**Recommended use** Pigment. Industrial applications.

**Uses advised against** Do not use for cosmetics, food additives, drug additives, feed additives or permanent implant applications.

### Details of manufacturer or importer

#### **Supplier**

Ixom Operations Pty Ltd  
ABN: 51 600 546 512  
Level 8, 1 Nicholson Street  
Melbourne 3000  
Australia

Telephone Number: +61 3 9906 3000

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## Section 2: Hazard identification

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Not classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

### GHS Classification

### Label elements

### Other hazards which do not result in classification

**Section 3: Composition and information on ingredients**

Chemical name	CAS No.	Weight-%
Titanium dioxide	13463-67-7	90-100

**Section 4: First aid measures****Description of first aid measures**

<b>General advice</b>	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
<b>Inhalation</b>	Remove to fresh air. (Call a physician if symptoms occur).
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash skin with soap and water. (Call a physician if symptoms occur).
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause physical irritation to the eyes.

**Effects of Exposure** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**Section 5: Firefighting measures****Suitable Extinguishing Media**

**Suitable extinguishing media** Use extinguishing agent suitable for type of surrounding fire.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Non-combustible.

**Special protective actions for fire-fighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**Section 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Avoid generation of dust. Use personal protective equipment as required. See section 8 for more information.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

**Section 7: Handling and storage****Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin and eyes. Avoid breathing dust or spray mist. Ensure adequate ventilation. Use personal protection equipment. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible materials** Strong acids.

**Section 8: Exposure controls and personal protection****Control parameters****Exposure Limits**

Chemical name	Australia	New Zealand	ACGIH TLV
Titanium dioxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> nanoscale respirable particulate matter TWA: 2.5 mg/m <sup>3</sup> finescale respirable particulate matter

Chemical name	European Union	United Kingdom	Germany DFG
Titanium dioxide 13463-67-7	-	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>	TWA: 0.3 mg/m <sup>3</sup> Peak: 2.4 mg/m <sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be

kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### Appropriate engineering controls

**Engineering controls** Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

### Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.



<b>Eye/face protection</b>	Glasses.
<b>Skin and body protection</b>	Protective shoes or boots. Wear suitable protective clothing. Overalls.
<b>Hand protection</b>	Impervious gloves.
<b>Respiratory protection</b>	If determined by a risk assessment an inhalation risk exists, wear a dust mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
<b>Environmental exposure controls</b>	No information available.
<b>Thermal hazards</b>	No information available.

## **Section 9: Physical and chemical properties**

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	No information available
<b>Color</b>	White
<b>Odor</b>	Odourless
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	Not applicable	None known
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	1560-1850°C	None known
<b>Boiling point / boiling range</b>	2500-3000°C	None known
<b>Flash point</b>	Not applicable	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known

<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	3.5-4.2	None known
<b>Water solubility</b>	Insoluble in water	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

Other information**Section 10: Stability and reactivity**Reactivity

**Reactivity** No information available.

Chemical stability

**Stability** Stable under normal conditions.

Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

Conditions to avoid

**Conditions to avoid** Dust formation.

Incompatible materials

**Incompatible materials** Strong acids.

Hazardous decomposition products

**Hazardous decomposition products** None known based on information supplied.

**Section 11: Toxicological information**Information on likely routes of exposure

**Product Information** No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

**Inhalation** Inhalation of dust in high concentration may cause irritation of respiratory system.

**Eye contact** Dust contact with the eyes can lead to mechanical irritation.

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<b>Skin contact</b>	Contact with dust can cause mechanical irritation or drying of the skin.
<b>Ingestion</b>	May cause gastrointestinal discomfort if consumed in large amounts.
<b>Symptoms</b>	No information available.

**Acute toxicity****Numerical measures of toxicity - Product Information**

<b>On basis of test data</b>	
<b>Oral LD50</b>	> 5000 mg/kg (rat)
<b>Dermal LD50</b>	> 10,000 mg/kg (rabbit)
<b>Inhalation LC50</b>	> 6.82 mg/l

**Numerical measures of toxicity - Component Information**

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Not classified.
<b>Serious eye damage/eye irritation</b>	Not classified.
<b>Respiratory or skin sensitization</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>Reproductive toxicity</b>	Not classified.
<b>STOT - single exposure</b>	Not classified.
<b>STOT - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.
<b>Chronic effects:</b>	Repeated or prolonged skin contact may lead to drying and cracking of the skin.

**Section 12: Ecological information****Ecotoxicity**

<b>Aquatic ecotoxicity</b>	Keep out of waterways.
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Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Titanium dioxide	-	LC50 (96hrs): >1,000 mg/L (Fundulus heteroclitus)	-	EC50 (48hrs): >1,000 mg/L (Daphnia magna)

**Terrestrial ecotoxicity** There is no data for this product.

#### Persistence and degradability

**Persistence and degradability** Biodegradation is not an applicable endpoint since the product is an inorganic substance.

#### Bioaccumulative potential

**Bioaccumulation** Material does not bioaccumulate.

#### Mobility

**Mobility** No information available.

#### Other adverse effects

**Other adverse effects** No information available.

### Section 13: Disposal considerations

#### Waste treatment methods

**Waste from residues/unused products** Landfill or incineration in accordance with local, state and federal regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

See section 8 for more information

### Section 14: Transport information

**ADG** Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

**IATA** Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

**IMDG** Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

#### **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No information available

### Section 15: Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Not classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

**Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)**

No poisons schedule number allocated

**Poison Schedule Number** Not applicable

**Australian Industrial Chemicals Introduction Scheme (AICIS)**

Contact supplier for inventory compliance status

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Titanium dioxide - 13463-67-7	Present	-

**Illicit Drug Precursors/Reagents**

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

**International Inventories**

<b>AIIC</b>	This material is listed on the Australian Inventory of Industrial Chemicals.
<b>NZIoC</b>	This material is listed on the New Zealand Inventory of Chemicals.
<b>TSCA</b>	Contact supplier for inventory compliance status.
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.

**Legend:**

**AIIC**- Australian Inventory of Industrial Chemicals

**NZIoC** - New Zealand Inventory of Chemicals

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable



The Rotterdam Convention Not applicable

## Section 16: Other information

Supplier Safety Data Sheet 09/ 2021

**Reason(s) For Issue:** First Issue Primary SDS

**Prepared By** This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision date:** 04-Mar-2024

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

SVHC: Substances of Very High Concern for Authorization:  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances  
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances  
STOT: Specific Target Organ Toxicity  
ATE: Acute Toxicity Estimate  
LC50: 50% Lethal Concentration  
LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
Australian Industrial Chemicals Introduction Scheme (AICIS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Disclaimer**

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

**End of Safety Data Sheet**