

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Titanium dioxide

Version 1.0

Issue date: 16/08/2018

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SDS Record Number: CSSS-TCO-010-122789

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Titanium dioxide
Additional identification: Not available
Identification of the product: CAS#13463-67-7; EC# 236-675-5
Index Number: Not available
REACH registration No.: 01-2119489379-17-xxxx

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

White pigment colorant.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited
Supplier(Manufacturer): SHANGHAI JIANGHU TITANIUM WHITE PRODUCT CO.,LTD
Address: NO.178, HAILUN ROAD, SHANGHAI, CHINA
Contact person(E-mail): -
Telephone: +86-21-65038960
Fax: +86-21-65034003

1.4 Emergency telephone Number:

+353 41 980 6916 (Only available during office hours (8:30a.m.-17:30p.m.))

Available outside office hours? YES NO

Section 2 Hazards Identification

2.1 Classification of the substance/mixture:

2.1.1 Classification:

The substance is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard codes
Skin Irrit. 2	H315
Eye Irrit. 2	H319

For full text of H- phrases: see section 2.2.

2.2 label elements:

Hazard Pictograms:



Signal Word(S): Warning

Hazard Statement: H315: Causes skin irritation
H319: Causes serious eye irritation

Precautionary statement: P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352: IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P362 + P364: Take off contaminated clothing and wash it before reuse.

2.3 Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification
Titanium dioxide	01-2119489379-17-xxxx	13463-67-7	236-675-5	≥99%	H315 H319
Water content	N/A	7732-18-5	231-791-2	≤0.5%	N/A
Ash content	N/A	N/A	N/A	≤0.5%	N/A

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Move to a fresh air atmosphere. In case of persistent symptoms, consult a doctor.

4.1.2 In case of skin contact:

Wash with soap and water.

4.1.3 In case of eyes contact:

Rinse immediately with plenty of water. If irritation persists, seek medical attention.

4.1.4 In case of ingestion:

No adverse health effects anticipated by this route, however, in the event of ingestion, increase intake of liquid in order to flush from the body. In case of persistent symptoms, consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed:

Causes skin irritation. Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Use any media appropriate for combustible material in the area.

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

No specific fire or explosion hazard.

5.3 Advice for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Avoid generation of dust. Ensure adequate ventilation. Wear personal protective equipment.

6.1.2 For emergency responders: Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

6.2 Environmental Precautions:

Prevent run-off from entering ground, storm sewers and ditches which lead to natural waterways.

6.3 Methods for Containment and Cleaning up:

Use any feasible mechanical means (e.g. vacuum, sweeping) but avoid dusting during clean-up. The product can cause slippery conditions if wet.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Avoid raising and breathing dust. Observe good industrial hygiene practice for chemical handling. Avoid raising dust. Handling systems and areas should be operated in such a way as to minimise exposure to dust. Local exhaust ventilation may be necessary. Take precautionary measures against static discharges. Manual handling guidelines should be adhered to when handling sacks.

7.1.2 Advice on general occupational hygiene:

Individuals having sensitive skin may find it beneficial to use a barrier cream or moisturizer when excessive or prolonged contact with the skin is likely. Engineering controls and safe systems of work should be used in preference to Personal Protective Equipment (PPE) to minimise the risk of exposure.

7.2 Conditions for safe storage, including any incompatibilities:

Pigments should not be stored in outside areas exposed to the weather. Care should be taken to avoid exposure to moisture. Incompatible materials: None.

Packing material: Paper, Plastic.

Store at room temperature.

7.3 Specific end use(s):

Not applicable.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Substance	Occupational Exposure Limit Value (8-hour reference period)	Occupational Exposure Limit Value (15-minute reference period)
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	CAS No.	ppm	mg/ m3	ppm	mg/ m3	Notes
Titanium dioxide	13463-67-7					
total inhalable dust		-	10	-	-	-
respirable dust		-	4	-	-	-

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Workers - Hazard via inhalation route - Local effects - Long term exposure - DNEL (Derived No Effect Level): 10 mg/m³
 General Population - Hazard via oral route - Systemic effects - Long term exposure - DNEL (Derived No Effect Level): 700 mg/kg bw/day
 PNEC aqua (freshwater): 0.184 mg/L
 PNEC aqua (marine water): 0.018 mg/L
 PNEC STP: 100 mg/L
 PNEC sediment (freshwater): 1 000 mg/kg sediment dw
 PNEC sediment (marine water): 100 mg/kg sediment dw
 PNEC soil: 100 mg/kg soil dw

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: The use of dustproof goggles or glasses with side protections is recommended if dust concentrations are likely to exceed the occupational exposure limit.

Hand protection: Prolonged exposure should be avoided by wearing suitable impervious protective gloves.

Body protection: Respect main rules concerning the protection clothes for chemicals handling.

Respiratory protection: A respirator must be used if the dust concentration is likely to exceed the occupational exposure limit. An approved dust respirator is recommended as appropriate depending on dust levels and other workplace factors.

Thermal hazards: Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls: Avoid discharge into the environment.
 According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance: Powder

Colour: White

Odour: Odorless

Odour threshold: Not available

pH: 6.5-8.5

Melting point/range (°C): 1560 °C

Boiling point/range (°C): ca. 3000 °C

Flash point (°C): Not available

Evaporation rate: Not available

Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Density:	3.9 g/cm ³ (20°C)
Bulk density (kg/m³):	Not available
Water solubility (g/l):	< 1 µg/L
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	TiO ₂
Molecular Weight:	79.87

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials.
10.5 Incompatible materials:	Not available
10.6 Hazardous decomposition products:	Not available

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:	
LD50(Oral, Rat):	> 5000 mg/kg bw
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	> 6.82 mg/L 4h(male)
Skin corrosion/Irritation:	Causes skin irritation.
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified

Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

Section 12 Ecological information

12.1 Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	155 mg/L	96h	Fish	OECD 203	N/A	N/A
LC50	>= 500 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50	> 100 mg/L	72h	Algae	OECD 201	N/A	N/A

12.2 Persistence and degradability:	Not available.
12.3 Bioaccumulative potential:	Not available.
12.4 Mobility in soil:	log Kp: 4.61 L/kg
12.5 Results of PBT&vPvB assessment:	The substance is not PBT / vPvB.
12.6 Other adverse effects:	Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods:	The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.
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Section 14 Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard Class	Not regulated	Not regulated	Not regulated
Packaging group	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated

Section 15 Regulation information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization:	Not applicable.
Relevant information regarding restriction:	Not applicable.
Other EU regulations:	Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations:

Not applicable

15.2 Chemical Safety Assessment has been carried out? YES

NO

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

16.2 Training instructions:

Not applicable.

16.3 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.4 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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