

Material Safety Data Sheet

Titanium Dioxide

Revision date: 1.Aug.2021

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Code: JIUTA Titanium Dioxide
Synonyms: JTR-719,JTR-719T,JTR-739,JTR-759,
JTR-799,JTCR-519,JTCR-539,JTCR-599,JTCR-899

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:
White pigment for paints and coatings, paper, rubber, plastics, printing inks

Uses advised against:
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1.3 Details of the supplier of the safety data sheet

Manufacturer / supplier: Shanghai Jiuta Chemical Co.,Ltd
RM1225,NO 5 BUILDING,NO 26 Hexuan RD
Shanghai, China
Phone: +86 21 52042175
Fax: +86 21 52042152
Mail: postmaster@shjiuta.com

1.4 Emergency

telephone number +86 21 52042175

2. POSSIBLE HAZARDS

2.1 Classification of the substance or mixture

The product is not classified hazardous according to the Regulation (EC) No 1272/2008 and the Council Directives 67/548/EEC and 1999/45/EEC. Therefore no obligation exists to issue a safety data sheet according to REACH Art. 31.

2.2. Label elements

No special labelling required

- **2.3 Other hazards**

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3. COMPOSITION/INFORMATION ON INGREDIENTS

- **3.1 Chemical Characterisation (Substance)**

Classification according to DSD -DPD / CLP

Substance identification	ID Numbers	Classification		Hazard Statemernts (R/H)
Titanium Dioxide	CAS. EINECS INDEX: Color Index	13463-67-7 236-675-5 - C.I. 77891 Pigment white 6	-	-

- **3.2 Chemical Characterisation (Mixture)**

Description: No mixture

Hazardous components: -

4. FIRST AID MEASURES

- **4.1 Description of first aid measures**

General indications: No hazards which require special first aid measures.

Inhalation: Move to fresh air. Give symptomatic treatment as necessary.

Skin contact: Wash with soap and water.

Eye contact: Wash with water or neutral eyewash solution.

Ingestion: Do not induce vomiting. Give up to 200 ml water. In case of persistent symptoms, consult a doctor.

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

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

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5. FIREFIGHTING MEASURES

- **5.1 Extinguishing media**

No restrictions

- **5.2 Special hazards arising from the substance or mixture**

The product itself does not burn. Product is inert, not flammable and incombustible.

- **5.3 Advice for firefighters**

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Ensure adequate ventilation.

- 6.2 Environmental precautions

Avoid dust dispersion to the environment. Dust may cause the surroundings to become white.

Prevent leakages from entering drains and ditches that lead to natural waterways.

- 6.3 Methods and material for containment and cleaning up

Use any suitable mechanical means (e.g. vacuum, sweeping), but avoid dusting during clean-up.

- 6.4 Reference to other sections

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7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling

Avoid dust formation during handling. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. In case of insufficient ventilation, wear suitable respiratory equipment.

- 7.2 Conditions for safe storage, including any incompatibilities

Fire Precautions: The product is not flammable

Storage conditions/ Keep in a dry place.

Packing material:

Incompatible products: No restrictions

- 7.3 Specific end use(s)

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters

Substance CAS No.	Titanium dioxide 13463-67-7		Dust, inhalable		Dust, respirable	
	Limit value – Eight Hours mg/m ³	Limit value - Short term mg/m ³	Limit value – Eight Hours mg/m ³	Limit value - Short term mg/m ³	Limit value – Eight Hours mg/m ³	Limit value - Short term mg/m ³
Austria			10	20	5	10
Belgium	10		10		3	
Canada - Québec	10					
Denmark	6 total dust	12 total dust	10	20		

European Union					
France	11 inhalable aerosol		10	5 respirable aerosol	
Germany (AGS)			10	20	3 6
Germany (DFG)			4		1,5
Hungary			10		6
Italy					
Japan					
Poland	10	30			
Spain	10 inhalable aerosol		10		3
Sweden	5 inhalable aerosol		10		5
Switzerland	3 respirable aerosol		10		3
The Netherlands					
USA - OSHA	15 total dust		15		5
United Kingdom	10 inhalable aerosol 4 respirable aerosol				

Remarks:

Austria					*STV 15 minutes average value
France				*Bold type: Restrictive statutory limit values	*Bold type: Restrictive statutory limit values
Germany(AGS)				*15 minutes average value, insoluble particulates	*15 minutes average value, insoluble particulates
Germany(DFG)				*long term exposure level, insoluble particulates	*insoluble particulates

(Source: GESTIS - Internationale Grenzwerte für chemische Substanzen - Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA))

- 8.2 Exposure controls

Engineering measures: None required

Personal Protection Equipment

Industrial hygiene measures: Maintain exposures below applicable exposure limits:

Respiratory protection: A respirator must be used if the dust concentration is likely to exceed the occupational exposure limit. At

higher concentrations wear particle filter DIN EN 143 - P2.

Hand protection:	Prolonged exposure should be avoided by wearing suitable protective gloves and clothing.
Eye protection:	The use of an approved dustproof goggles is recommended if the dust concentration is likely to exceed the occupational exposure limit
Skin protection:	TiO ₂ pigments are not irritant but as with all fine powders can adsorb moisture and natural oils from the surface of the skin during prolonged exposure. Prolonged exposure should be avoided by wearing suitable protective gloves and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties

Appearance

Physical State: powder **Color:** white **Odor:** none

Critical Data

Melting point or range:	> 1,800°C
Boiling point or range:	not applicable
Flash point:	not flammable
Ignition temperature:	not flammable Auto-
ignition temperature:	not flammable Oxidizing
properties:	none
Explosive properties:	no danger of explosion.
Explosivity or flammability limit	-
in air:	
Vapour pressure:	not applicable
Density:	approx. 4,1 g/ml
Solubility:	practically insoluble
pH-value:	approx. 7-8,5
Partition coefficient:	not applicable
Viscosity:	not applicable

- 9.2 Other information

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10. STABILITY AND REACTIVITY

- 10.1 Reactivity

No special reactivity known

- 10.2 Chemical stability

Stable under normal use conditions

- 10.3 Possibility of hazardous reactions

No hazardous reactions known

- **10.4 Conditions to avoid**

Stable under normal use conditions

- **10.5 Incompatible materials**

None known

- **10.6 Hazardous decomposition products**

No hazardous decomposition products known

11. TOXICOLOGICAL INFORMATION

- **11.1 Information on toxicological effects**

- **Acute toxicity:**

LD50 (rats, oral) > 10,000 mg/kg

Inhalative LC50 /4 hrs (Rat): > 6.8 mg/l

- **Irritation/corrosion:**

Titanium dioxide is not irritating

- **Sensitisation:**

No sensitisation known

- **Chronic Toxicity:**

Non genotoxic.

- **Further information:**

Health injuries are not known under normal use. Tumours produced in rats on inhalation of very high concentrations of titanium dioxide are believed to be the result of prolonged "lung overload" and are not considered relevant to man.

12. ECOLOGICAL INFORMATION

- **12.1 Toxicity**

Aquatic toxicity: Fish LC0 (Leuciscus idus, 48h): > 1000 mg/l

- **12.2 Persistence and degradability**

Methods for the determination of biodegradability are not applicable to inorganic substances.

- **12.3 Bioaccumulative potential**

The product is practically insoluble in water and not biodegradable.

- **12.4 Mobility in soil**

No data

- **12.5 Results of PBT and vPvB assessment**

According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances. Titanium Dioxide is an inorganic substance, thus a PBT and vPvB assessment is not required.

- **12.6 Other adverse effects**

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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product:	No hazardous waste according to European Directive 2000/5322/EC. Place in an appropriate disposal facility in compliance with local and national regulations.
Contaminated packaging:	Containers that cannot be cleaned must be treated as waste and disposed of in an approved industrial incineration facility. The empty and clean containers may be reused in conformity with regulations.
Cleanser:	water

14. TRANSPORT INFORMATION

14.1 UN number

The products are not classified as hazardous materials according to the ADR/RID, IMDG, IATA on the transport of dangerous or hazardous goods.

14.2 UN proper shipping name

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14.3 Transport hazard class(es)

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14.4 Packing group

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14.5 Environmental hazards

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14.6 Special precautions for user

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14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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15. REGULATORY INFORMATION

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

Inhalation of TiO₂ dust: In February 2006 IARC concluded, "There is inadequate evidence in humans for the carcinogenicity of titanium dioxide." Based on rat inhalation studies IARC concluded that there is, "sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide," IARC's overall evaluation was that, "Titanium dioxide is possibly carcinogenic to humans (Group 2B)".

This conclusion was based on IARC's guidelines which require such a classification if two or more independent studies in one species carried out of different times or in different laboratories or under different protocols show evidence of tumors .

15.2 National Regulations

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15.2 Chemical safety assessment

The substance has undergone a safety assessment.

16. OTHER INFORMATION

• 16.1 HMIS Ratings

Health: 1

Flammability: 0

Physical hazard: 0

• 16.2 Additional Information

MEDICAL USE: CAUTION: Do not use in medical applications involving permanent implantation in the human body.

The required testing has not been done to qualify any of our products for direct inclusion in food, drugs, or cosmetic formulations.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

• 16.3 Responsibility for MSDS:

Shanghai Jiuta Chemical Co.,Ltd

RM1225,NO 5 BUILDING,NO 26 Hexuan RD

Shanghai, China

Tel: 0086 21 52042175

The data given here are based on current knowledge and experience. The purpose of this Material Safety Data Sheet is to describe the product in terms of its safety requirements. The data do not signify any warranty with regard to the product's properties.