



# Safety Data Sheet

Version 3.00, Reviewed on: 25/11/2021

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:**

**Trade name:** Yibin Tianyuan Titanium dioxide (all types)

**CAS NO:** 13463-67-7

**Molecular formula:** TiO<sub>2</sub>

**Relevant uses:** White pigment for application in coating materials, printing inks, plastics, paper and ceramics

**Uses advised against:** None

**Product Warranty:** Under the product storage condition, there is 36 valid months from the date of manufacture.

**Company Identifier:**

**Manufacture name:** Yibin Tianyuan Haifeng hetai Company Limited

**Address:** Yangchun Industrial Park, Jiang'an County, Yibin City, Sichuan Province

**Telephone:** 0831 8770057

**Fax:** 0831 8770057

**Emergency telephone:** 0831 8770123

**24-hour emergency call:** 0831 8778888

**Email address:** kjhy@ybst.com

## SECTION 2: HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**

**GHS Classification:** The substance is not classified according to the Globally Harmonized System (GHS)

**Label elements**

**GHS label elements:** Not applicable

**Hazard pictogram(s):** Not applicable

**Signal word:** Not applicable

**Hazard statement(s):** Not applicable

**Precautionary statement(s):** Not applicable

**Other hazards:** Dust load

**Additional information:** The products identified in section 1 are not classified pursuant to Regulation 2020/217 (14th ATP to Regulation (EU) 1272/2008, Annex VI). EUH 212 is included in section 2 voluntarily.

EUH210 Safety data sheet available on request.

EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.



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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition	Content %	CAS No.
TiO <sub>2</sub>	≥94- < 100	13463-67-7

**Mixtures:**  
Not Applicable

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

**General notes:** No special measures required

**Skin contact:** Remove contaminated clothing and wash skin with clean water.

**Eye contact:** Lifting the eyelids and flush eyes with clean water or saline, get medical advice.

**Inhalation:** Supply fresh air.

**Ingestion:** Rinse mouth. Induce vomiting through drinking enough warm water. Get medical advice.

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

No information available.

### Indication of the immediate medical attention and special treatment needed

No information available.

## SECTION 5: FIRE FIGHTING MEASURES

### Extinguishing media

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

**Unsuitable extinguishing media:** No information available

**Special hazards arising from the substance or mixture:** Product is inert, nonflammable and noncombustible.

**Advice for fire-fighters:** Wear self-contained breathing apparatus and chemical-protective clothing. Prevent fire extinguishing water from contaminating surface water or the ground water system.



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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### Emergency procedures:

Ensure adequate ventilation. Wear personal protective equipment such as dust protective mask

#### Environmental precautions:

No Special measures required

### Methods and material 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. Even at low concentration, the product renders the discharge in liquid effluent highly visible.

### 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

### Handling

**Precautions for safe handling:** Closed operation with local exhaust ventilation.

Observe good industrial hygiene practice for chemical handling. Avoid raising dust.

Handling systems and areas should be operated in such a way as to minimize exposure to dust. Take precautionary measures against static discharges.

### Conditions for safe storage, including any incompatibilities

Store in a cool and ventilate warehouse. Keep it away from fire and heat. Store separately from the acid, avoid mixing. Pigments should not be stored in outside areas exposed to the weather. Care should be taken to avoid exposure to moisture.

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

### Control Parameters

#### Occupational exposure limit values:

ACGIH – TLV 10 mg/m<sup>3</sup> TWA

OSHA – PEL 15\* mg/m<sup>3</sup>

\*Total dust 8 hr TWA

#### Appropriate engineering controls:

Provide local exhaust or process enclosure ventilation system.



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## Personal protective equipment:

**Eye and face protection:** Use dustproof goggles or glasses with side protections is recommended if necessary.

**Skin protection:** Prolonged exposure should be avoided by wearing suitable protective gloves.

**Respiratory protection:** In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls:** Do not allow material to contaminate ground water system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### General information

**Appearance:**

**Form:** Powder

**Color:** White

**Odor:** Odorless

**pH at 20 °C (68 °F):** 6.0-8.5

**Melting point:** > 1800 °C (3 727 °F)

**Boiling point:** Not relevant

**Flash point:** Not applicable.

**Evaporation rate:** Not applicable.

**Flammability (solid, gas):** Not available.

**Upper/lower flammability or explosive limits:** Not available

**Relative density (water=1):** 4.1

**Solubility(ies):** Not available.

**Partition coefficient: n-octanol/water:** Not applicable.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Viscosity:** Not applicable.

**Explosive properties:** Not explosive

**Oxidizing properties:** No oxidizing properties

**Particle characteristics:** Percentage of particles with an aerodynamic diameter ≤ 10 µm in the products identified in section 1

Grade Name	Mass percentage ≤ 10 µm	Method
TYR561	0.011	EN15051-2
TYR568	0.005	EN15051-2
TYR588	0.001	EN15051-2

#### Other information

No data available.

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

Stable under recommended storage and handling conditions.

### Chemical stability

Stable under normal conditions of use.

### Possibility of hazardous reactions

No known hazardous reactions.

### Conditions to avoid

Flames, heat, and other sources of ignition.

### Incompatible materials

None reasonably foreseeable.

### Hazardous decomposition products

None known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Acute toxicity

**Oral:** LD50 > 5000 mg/kg (rat) (OECD 425)

**Inhalation:** LC50 > 6.82 mg/L

**Dermal:** LC50 > 5000 mg/kg (rabbit)

#### Primary irritant effect

**Skin corrosion/irritation:** OECD 404. Not irritating. Powder material may dry and mechanically irritate skin

**Serious eye damage/irritation:** OECD 405. Not irritating.

**Respiratory or skin sensitization:** OECD 406, OECD 429. Not sensitizing.

#### Toxicokinetic, metabolism and distribution:

No substantial accumulation of titanium was observed in tissues following oral administration of titanium dioxide. Dermal absorption can be considered negligible, as titanium dioxide has been shown not to penetrate human skin to any appreciable degree.



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## CMR effects (Carcinogenicity, mutagenicity and toxicity for reproduction)

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** Based on available data, the classification criteria are not met.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT-single exposure:** No information available.

### STOT-repeated exposure:

NOAEL: 3,500 mg/kg bw/day (oral; chronic; rat)

NOAEC: 10 mg/m<sup>3</sup> (inhalation; chronic; rat)

**Aspiration hazard:** No information available.

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

**Toxicity to Fish:** LC50 for freshwater fish: 1000 mg/L

LC50 for marine water fish: 10000 mg/L

**Aquatic invertebrates:** EC50/LC50 for freshwater invertebrates: 1000 mg/L

EC50/LC50 for marine water invertebrates: 10000 mg/L

**Algae:** EC50/LC50 for freshwater algae: 61 mg/L

EC50/LC50 for marine water algae: 10000 mg/L

### Persistence and degradability

Degradation/biodegradation testing is not relevant for metals and metal compounds like TiO<sub>2</sub>, which are considered as not (bio) degradable.

### Bioaccumulative potential

TiO<sub>2</sub> not considered as bio-accumulative.

### Mobility in soil

No information available.

### Results of PBT and vPvB assessment

Titanium dioxide is an inorganic substance, thus a PBT and vPvB assessment is not required

### Other adverse effects

No information available.



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## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods Recommendations:

Disposal must be made according to local and national regulations. Contaminated packages are not considered hazardous. If recycling is not practicable, dispose of in compliance with local regulations.

**Uncleaned packaging recommendations:** residue titanium dioxide or paper/plastic packaging bag. Disposal methods: Refer to the state and local regulations before disposal. Recovery and disposal through safe landfill or by the certificated company.

## SECTION 14: TRANSPORT INFORMATION

### UN Number

Not regulated as dangerous goods.

### UN proper shipping name

Not regulated as dangerous goods.

### Transport hazard class(es)

Not regulated as dangerous goods.

### Packing group

Not regulated as dangerous goods.

### Environmental hazards

Not an environmentally hazardous substance. Not a marine pollutant.

### Special precautions for user

No information available.

## SECTION 15: REGULATORY INFORMATION

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

### SARA

**Section 355 (extremely hazardous substances):** Substance is not listed

**Section 313 (specific toxic chemical listing):** Substance is not listed

**TSCA USA:** Active

**Canada DSL:** Active

**Hazardous air pollutants:** Substance is not listed

**Proposition 65**



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**Chemical known to cause cancer:** Substance is listed. The listing is for titanium dioxide as “airborne, unbound particles of respirable size” and does not cover titanium dioxide when it remains within the product matrix.

**Carcinogenic categories:**

**EPA (Environmental Protection Agency):** Substance is not listed

**TLV (Threshold Limit Value Notation established by ACGIH):** A4 Not classifiable as human carcinogen

**NIOSH-Ca National Institute for Occupational Safety and Health):** Substance is listed.

## SECTION 16: OTHER INFORMATION

### Revision Information

**Date of the previous revision:** Not applicable.

**Date of this revision:** 10/01/2019

### Abbreviations and acronyms

**CLP:** EU regulation (EC) No 1272/2008 on classification, labeling and packaging of chemical substances and mixtures.

**CAS:** Chemical Abstracts Service (division of the American Chemical Society).

**EINECS:** European Inventory of Existing Commercial Chemical Substances.

**DSD:** Dangerous Substance Directive (67/548/EEC).

**TSCA:** Toxic Substances Control Act, The American chemical inventory.

**DSL:** Domestic Substances List, The Canadian chemical inventory.

**IMDG:** International Maritime Code for Dangerous Goods

**DOT:** US Department of Transportation

**ACGIH:** American Conference of Governmental Industrial Hygienists

**LC50:** Lethal Concentration, 50 percent

**LD50:** Lethal dose, 50 percent

**NIOSH:** National Institute for Occupational Safety

**OSHA:** Occupational Safety and Health

**TLV:** Threshold Value

**PEL:** Permissible Exposure Limit

**REL:** Recommended Exposure Limit

### Key literature references and sources for data

Chemical safety report for titanium dioxide.