



MATERIAL SAFETY DATA SHEET

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

1.1 Product identifier

Trade name: Titanium Dioxide

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

General use: Agents adsorbing and absorbing gases or liquids Colouring agents, pigments Fillers Food/feedstuff additives Intermediates Laboratory chemicals Odour agents Semiconductors and photovoltaic agents Photosensitive agents and other photo-chemicals Catalyst supports, delustrants

1.3 Details of the supplier of the safety data sheet.

Company: Aurora Industry Co.,Ltd.

Address:Room 7033, No.9-1, Haifu Road, Dalian Free Trade Zone, China

Tel:0411-82288674

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards - none

Section 3 - Composition /Information on Ingredients

Chemical Name	CAS No.	Concentration%
Titanium Dioxide	13463-67-7	99.0%

Section 4 - First Aid Measures

4.1 Description of first aid measures

General information:

Provide rest, warm conditions, comfort position, fresh air availability.

In case of inhalation

Remove to fresh air. Get medical attention for any breathing difficulty.

In case of eye contact

In the case of contact with eyes, rinse immediately with plenty of water. If symptoms persist, call a physician.

In case of skin contact

Wash skin with soap and water Use of moisturizer may be helpful

In case of ingestion

If large amounts were swallowed, give water to drink and get medical advice.



Information to physician

Treat symptomatically and supportively.

First aid arsenal

Universal medical kit with a set of drugs (in consultation with the medical department of the enterprise).

4.3 Indication of any immediate medical attention and special treatment needed

Immediate first aid attention is not expected

Section 5 - Fire and Explosion Hazard Data

5.1 Extinguishing media

Suitable extinguishing media:

Use any means suitable for extinguishing surrounding fire.

Unsuitable extinguishing media

Do not scatter spilled material with high pressure water streams in case of large fire.

5.2 Special hazards arising from the chemical:

Hazardous combustion products

Not available

Special protective equipment for fire-fighters

Wear full protective clothing and NIOSH-approved selfcontained breathing apparatus in case of large fire.

Flammable properties

Non-flammable, non-explosive, see section 9.

5.3 Advice for fire-fighters

A violent or incandescent reaction with metals (aluminum, calcium, magnesium, potassium, sodium, zinc, and lithium) may occur at high temperatures

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions

Avoid inhalation of dust by arranging adequate ventilation, or use an appropriate dust mask. Avoid excessive contact with the skin. Use appropriate personal protective equipment.

Emergency procedures

Pick up spills and place in a suitable container for reclamation or disposal, using a method that does not generate dust (e.g. vacuum, sweeping). Ventilate area of leak or spill. Keep unauthorized personnel away.

6.2 Environmental precautions:

Avoid dust dispersion to the environment. Prevent leakages from entering drains and ditches that lead to natural waterways.

6.3 Methods and materials for containment and cleaning up:

Avoid dust formation. Provide adequate ventilation.

6.4. Reference to other sections

Information about personal precautions - see Section 8.

Information about waste disposal - see Section 13.



Section 7 - Handling and Storage

7.1 Precautions for safe handling

Precautions for safe handling

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

Fire preventions

None, as product has no flammable properties. See section 5.

Aerosol and dust generation preventions

Use local exhaust ventilation or other appropriate engineering controls to maintain dust exposures below occupational exposure limit.

Electrostatics prevention

As a matter of good practice take measures to prevent the buildup of electrostatic charge, such as ensuring all equipment is electrically grounded.

Safe transporting

Adhere to the rules on the transport of goods, which operate for the appropriate type of transport. Not violate the integrity of container. During loading works execute instructions and rules for the appropriate works.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas, wash hands after use, remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Technical measures and storage conditions

Store in manufacturer's package in cool and dry area where it is safe from contamination and exposure to atmospheric precipitations (rain, snow) and subsoil waters.

Packaging materials

Paper, Polypropylene with polyethylene liner.

Requirements for storage rooms and vessels

Special requirements for storage structures are not established. The product is to be stored at room temperature and normal humidity environment.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure No special environmental precautions required.

Section 9 - Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Solid, white powder

Odour Odourless

Odour threshold Not applicable

pH 6,5-8,0 (1 : 10 water suspension)

Melting point/range (°C) (Anatase) not applicable

Melting point/range (°C) 1843 (rutile)

Initial boiling point/range (°C) 3000

Flash point (°C) not applicable

Evaporation rate not applicable

Flammability not applicable

Upper/lower flammability or explosive limits not applicable

Vapour pressure not applicable

Vapour density not applicable

Relative density 3.8-3.9 (Anatase)

Relative density 4.26 (rutile)

Water solubility (20°C in g/l) insoluble (below the LOD of 1 µg/L at pH 6, 7 and 8)

Partition coefficient nOctanol/Water (log Po/w) In accordance with Column 2 of REACH Annex VII, does not need to be conducted as the substance is inorganic.

Auto-ignition temperature (°C) not applicable

Decomposition temperature (°C) not applicable

Viscosity not applicable

Explosive properties not applicable

Oxidising properties not applicable

9.2 Other information No other information

Section 10 - Stability and Reactivity

Reactivity: Not reactive under regular storage and use conditions.



Chemical stability: Stable under recommended storage and handling conditions. In case of emissions into atmosphere the substance doesn't form toxic compounds.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid: None

Incompatible materials: None

Hazardous decomposition products: None

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Acute toxicity LD50 Oral - rat - female - > 5.000 mg/kg

LC50 Inhalation - rat - male - 4 h - > 6,82 mg/l

Skin corrosion/irritation Skin - rabbit Result: No skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation Eyes - rabbit Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation no data available

Germ cell mutagenicity no data available

Carcinogenicity This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Rutile (TiO₂))

Reproductive toxicity no data available

Specific target organ toxicity - single exposure no data available

Specific target organ toxicity - repeated exposure no data available

Aspiration hazard no data available

Additional Information RTECS: BV6550000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

12.1 Toxicity no data available

12.2 Persistence and degradability no data available

12.3 Bioaccumulative potential no data available

12.4 Mobility in soil no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects no data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.



Section 14 - Transportation Information

14.1 UN number

ADR/RID:--, IMDG:-- , IATA: --

14.2 UN proper shipping name

ADR/RID:

Not dangerous goods

IMDG:

Not dangerous goods

IATA:

Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID:--, IMDG:-- , IATA: --

14.4 Packing group

ADR/RID:--, IMDG:-- , IATA: --

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

Section 15 - Regulatory Information

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

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

Section 16 - Other Information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.