



Material Data Safety Sheet

Quick Identifier: Titanium Oxides

I. PRODUCT IDENTIFICATION

Trade Name:	Titanium Oxides	Formula:	TiO ₂ , TiO, Ti ₂ O ₃ , Ti ₃ O ₅
Synonyms:		Molecular Weight:	
CAS #:	13463-67-7		

II. HAZARDOUS INGREDIENTS

<u>Hazardous Components:</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>	<u>Other Limits:</u>		
Titanium Oxide	15 mg/m ³	10 mg/m ³	5 mg/m ³		
Sec. 302 (EHS):	No	Sec. 304 RQ:	No	Sec. 313:	No
HMIS Ratings (0-4):	N/A	Flammability:	N/A	Reactivity:	N/A
Health:					
HMIS Protective Equipment:	N/A				

III. PHYSICAL DATA

Boiling Point:	2500 – 3000 C	Melting Point:	1830 C – 1850 C
Specific Gravity (H₂O=1):	3.84	Vapor Density (Air=1):	Not determined
Vapor Pressure (mm Hg):	Not determined	Evaporation Rate:	N/A
% Volatiles by Volume:	N/A	Solubility in H₂O:	Insolubility

Appearance and Odor: White

IV. FIRE AND EXPLOSION HAZARDS DATA

Flash Point/Method: Not applicable
Explosive Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: N/A

V. HEALTH HAZARD INFORMATION

Routes of Entry: Inhalation, Skin and Eyes.
Target Organs: N/A
Carcinogenicity: NTP: No **IARC Monographs:** No **OSHA Regulated:** No
LD50/LC50: No toxicity data recorded.

Health Hazards (Acute and Chronic):

Inhalation:

Acute: Dust could cause irritation to the upper respiratory tract and mucous membranes.

Chronic: May cause slight lesions in the lungs, lung fibrosis, bronchitis and emphysema.

Ingestion:

Acute: N/A

Chronic: N/A

Skin:

Acute: Repeated contact may cause irritation

Chronic: N/A

Eye:

Acute: Repeated contact may cause irritation

Chronic: N/A

Signs and Symptoms of Exposures:

Inhalation: N/a

Ingestion: N/a

Skin: N/A

Eye: N/a

Medical Conditions Generally N/A

Aggravated by Exposure:

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: If a person breathes in large amounts, move the exposed person to fresh air. Get medical attention

INGESTION: If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

SKIN: Immediately wash with plenty of soap and water for at least 15 minutes.

EYE: Immediately flush with plenty of water for 15 minutes. Get medical attention.

VI. REACTIVITY DATA

Stability: Stable
Incompatibility (Material to avoid): Strong acids.
Hazardous Decomposition Products: N/A
Hazardous Polymerization: Will not occur
Conditions to Avoid: None

VII. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wear suitable protective clothing, Carefully sweep up and remove.
Waste Disposal Method: In accordance with federal, state and local regulations.
Other Precautions: Keep containers tightly closed. Suitable for any general chemical storage.
Precautions to Be Taken in Handling and Storing: N/A

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required where adequate ventilation conditions exist.
Ventilation: Local Exhaust: Use general or local exhaust ventilation.
Mechanical (General): N/A
Protective Gloves: Recommended.
Eye Protection: Recommended.
Other Protective Clothing or Equipment: N/A

Work/Hygienic/Maintenance Practices: Normal hygienic practices.

IX. ADDITIONAL COMMENTS

Some of the chemicals listed herein are research or experimental substances which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a “technically qualified individual”, as defined in 40 CFR 710.2(aa).

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