

TITANIUM DIOXIDE

Material Safety Data Sheet (MSDS)

1. PRODUCT IDENTIFICATION

Product Name: Titanium dioxide
INCI Name: Titanium (IV) oxide
Synonyms: rutile, brookite, titanite anhydride
CAS Number: 13463-67-7
EINECS Number: 236-675-5
Origin: derived from the mineral ilmenite

Eye Contact: May cause irritation. Irrigate eye with water for at least 15 to 20 minutes. Seek medical attention if symptoms persist.
Skin Contact: Not expected to be a primary skin irritant.
Prolonged or excessive skin contact with this product may cause skin irritation.

2. PHYSICAL & CHEMICAL PROPERTIES

Density:	3.9-4.23 g/cm ³ (at 20°C)
Melting Point:	not determined
Boiling Point:	not determined
Ignition temperature:	not determined
Vapor Pressure:	not determined
Solubility in Water:	insoluble
Sublimation temperature:	not determined
Appearance & Odor:	white powder, odorless

8. FIRST AID MEASURES

Eyes: Irrigate eyes with a heavy stream of water for at least 15 to 20 minutes. If irritation persists get medical attention.
Skin: Wash exposed areas of the body with soap and water.
Inhalation: Remove from area of exposure. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.
Ingestion: If material is swallowed seek immediate medical attention.

3. STABILITY & REACTIVITY

Chemical Stability: stable under normal conditions
Incompatibility: avoid contact with metal powders and acids
Hazardous Decomposition: None known
Hazardous Polymerisation: None known
Hazardous Reactions: None known

9. FIRE FIGHTING MEASURES

Flammability: Product is not flammable
Flammability Limits: None known
Extinguishing Media: None known
Fire Fighting Procedures: Firefighters should wear full fire-fighting turn-out gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

4. HANDLING & STORAGE

Avoid contact with eyes. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.
Avoid freezing or excessive heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep the container tightly closed and in a cool, well-ventilated place.

10. TOXICOLOGICAL INFORMATION

Carcinogenicity: carcinogenic effects have been observed on tests with laboratory animals
LD50 Value: irritation on skin: mild: 300 mg/3D-I (hmn)
Chronic toxicity: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known

5. ACCIDENTAL RELEASE MEASURES

Isolate spill area immediately. Keep unauthorized personnel away.
Ventilate closed spaces before entering. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. Surface may become slippery after spillage. Use vacuum or broom sweeping and remove to disposal container. If damp, flush with water.

11. DISPOSAL CONSIDERATIONS

Storage and disposal must be in accordance with applicable local, state & federal disposal regulations. Characterization and compliance with applicable laws are the responsibility solely of the generator.

6. EXPOSURE CONTROLS & PERSONAL PROTECTION

Respiratory Protection: If dusts are generated, wear a NIOSH approved organic dust respirator.
Protective Clothing: Safety glasses, goggles, or face shield recommended to protect eyes from dusts. PVC coated gloves recommended to prevent skin contact.
Other Protective Measures: Employees must practice good personal hygiene, washing exposed areas of skin several times daily and laundering contaminated clothing before re-use.

12. TRANSPORT INFORMATION

DOT Proper Shipping Name: refer to bill of lading or container label for DOT or other transportation hazard classification, if any.
Not a hazardous material for transportation.
Land transport ADR/ RID (cross-border) Class: None
Maritime transport IMDG Class: None

7. HAZARDS IDENTIFICATION

Inhalation: Inhalation of dusts of the products may be irritating to respiratory system.
Ingestion: Adverse effects are expected upon ingestion.

13. DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.

ALL DATA HEREIN ARE ALL AS PER OUR SUPPLIER.