

Material Safety Data Sheet

Titanium Dioxide Rutile

Section 1: Chemical Product and Company Identification

Product Name: Titanium Dioxide Rutile 91.5%

Chemical Name: Titanium Dioxide Rutile

Customs Tariff No: 32061110

Synonym Name:

Anatase; Titania; Titanic Anhydride.

Chemical Formula:

Company Information:

Chemtrade International

Rm. 201, Unit 3, Building 8, Shijia Garden, No. 93,
Xiangjiang Road, Qingdao Development Zone,
Qingdao, Shandong, China 266555

Tel: 0086-532-86893005

Fax: 0086-532-86893005

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS No.	EINECS No.	%by weight
Titanium Dioxide Rutile	13463-67-7	236-675-5	91.5

Section 3: Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid.

Caution! May cause eye and skin irritation. May cause respiratory tract irritation.

Target Organs: No data found.

Potential Health Effects

Eye: Dust may cause mechanical irritation.

Skin: Dust may cause mechanical irritation.

Ingestion: No hazard expected in normal industrial use. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Dust is irritating to the respiratory tract. May cause pulmonary fibrosis and permanent damage.

Chronic: Chronic inhalation may cause pulmonary fibrosis.

Section 4: First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician: No specific antidote exists. Treat symptomatically and supportively.

Section 5: Fire and Explosion Data

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Flash Point: Not applicable.

Autoignition Temperature: None Reported

Explosion Limits, Lower: None Reported

Upper: None Reported

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7: Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Titanium(IV) Oxide	10 mg/m ³ TWA	5000 mg/m ³ IDLH	15 mg/m ³ TWA (total dust)

OSHA Vacated PELs: Titanium(IV) Oxide: 10 mg/m³ TWA (total dust)

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9: Physical and Chemical Properties

Physical State: Solid

Appearance: white to off-white

Odor: odorless

pH: Approximately 6 to 7

Vapor Pressure: Negligible.

Vapor Density: Not applicable.

Evaporation Rate: Negligible.

Viscosity: Not available.

Boiling Point: 4532-5432 deg F

Freezing/Melting Point: 3326-3362 deg F

Decomposition Temperature: Not available.

Solubility: Insoluble in water.

Specific Gravity/Density: 3.84-4.26 (water=1)

Molecular Formula: TiO₂

Molecular Weight: 79.8788

Section 10: Stability and Reactivity Data

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation.

Incompatibilities with Other Materials: A violent or incandescent reaction with metals (aluminum, calcium, magnesium, potassium, sodium, zinc and lithium) may occur at high temperatures. Substance is incompatible with strong acids.

Hazardous Decomposition Products: Titanium/titanium oxides.

Hazardous Polymerization: Has not been reported

Section 11: Toxicological Information

RTECS#:

CAS# 13463-67-7

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 13463-67-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: Please refer to RTECS# XR2275000 for specific information.

Neurotoxicity: No information available.

Other Studies:

Section 12: Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information reported.

Physical: No information available.

Other: No information available.

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14: Transport Information

US DOT: Not regulated as a hazardous material

Identification: No information found

Special Provisions for Transport: No information found

Section 15: Other Regulatory Information

US FEDERAL

TSCA

CAS# 13463-67-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 13463-67-7 can be found on the following state right to know lists: New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 13463-67-7: 0

Canada - DSL/NDSL

CAS# 13463-67-7 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16: Other Information

MSDS Creation Date: 6/16/2000

Revision #4 Date: 3/15/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Chemtrade International be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Chemtrade International has been advised of the possibility of such damages.