

Common Name: **TITANIUM DIOXIDE**

Synonyms: Rutile; Titanium Oxide; Anatase; Brookite
 CAS No: 13463-67-7; 1317-70-0 (powder form); 1317-80-2 (powder form)
 Molecular Formula: TiO₂
 RTK Substance No: 1861
 Description: Odorless, white powder

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
2 - Health 0 - Fire 0 - Reactivity DOT#: None ERG Guide #: None Hazard Class: None	Extinguish fire using an agent suitable for type of surrounding fire. Titanium Dioxide itself does not burn. POISONOUS GASES ARE PRODUCED IN FIRE.	Titanium Dioxide powders or dusts may react violently with CHEMICALLY ACTIVE METALS (such as POTASSIUM, SODIUM, MAGNESIUM and ZINC). Titanium Dioxide powders or dusts are not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) and STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC).

SPILL/LEAKS

Isolation Distance:
 Spill: 25 meters (75 feet)
 Fire: 800 meters (1/2 mile)
 Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

PHYSICAL PROPERTIES

Odor Threshold: Odorless
Flash Point: Noncombustible
Vapor Pressure: 0 mm Hg at 68°F (20°C)
Specific Gravity: 3.9 to 4.2 (water = 1)
Water Solubility: Insoluble
Boiling Point: 4,532° to 5,432°F (2,500° to 3,000°C)
Melting Point: 3,326° to 3,362°F (1,830° to 1,850°C)
Molecular Weight: 79.9

EXPOSURE LIMITS

OSHA: 15 mg/m³, 8-hr TWA
NIOSH: 2.4 mg/m³ (*fine*) and 0.3 mg/m³ (*ultrafine*), 10-hr TWA
ACGIH: 10 mg/m³, 8-hr TWA
IDLH: 5,000 mg/m³
 The Protective Action Criteria values are:
 PAC-1 = 30 mg/m³ PAC-2 = 330 mg/m³
 PAC-3 = 2,000 mg/m³

PROTECTIVE EQUIPMENT

Gloves: Nitrile, Neoprene and Natural Rubber
Coveralls: Tyvek®
Respirator: Spill - Full facepiece APR with *P100 filters* >0.3 mg/m³ (*ultrafine*) or Fire – SCBA
 >2.4 mg/m³ (*fine*) or Fire - SCBA
 >10 mg/m³ or Fire - SCBA

HEALTH EFFECTS

Eyes: Irritation
Skin: No information available
Inhalation: Nose and throat irritation
Chronic: Cancer (lung) in animals

FIRST AID AND DECONTAMINATION

Remove the person from exposure.
Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.
Remove contaminated clothing and wash contaminated skin with soap and water.
Begin artificial respiration if breathing has stopped and CPR if necessary.
Transfer promptly to a medical facility.