

MATERIAL SAFETY DATA SHEET

IDENTIFICATION

Name *Titanium Dioxide Pigment*
Ti-Pure® R-961

Synonyms *TiO₂, Titania, rutile*

CAS Name *Titanium Oxide*

I.D. Nos./Codes *NIOSH Access No. XR22750*

Manufacturer/Distributor
E I DUPONT DE NEMOURS & CO. INC.

Address *WILMINGTON, DE 19898*

Chemical Family *Inorganic Oxide*

CAS Registry No. *13443-67-7*

Product Information and Emergency Phone

(302) 774-2421

Transportation Emergency Phone

(800) 424-9300

HAZARDOUS COMPONENTS

Material(s)

Amorphous Silica

Approximate %

13

PHYSICAL DATA

Boiling Point, 760 mm Hg *Not Applicable*

Specific Gravity *3.8*

Vapor Density *Not Volatile*

% Volatiles by Vol. *0.75*

Melting Point *Not Applicable*

Vapor Pressure *Not volatile*

Solubility in H₂O *Insoluble*

Evaporation Rate (Butyl Acetate = 1)

Form *Solid*

Appearance *Powder*

Color *White*

Odor *None*

pH Information

Not Applicable 7.5-9.0 (of water slurry)

Octanol/Water Partition Coefficient

FIRE AND EXPLOSION DATA

Flash Point

Method

Autoignition Temperature

WILL NOT BURN

Flammable Limits in Air, % by Vol.

Lower

Upper

Fire and Explosion Hazards

NONE

Extinguishing Media

Special Fire Fighting Instructions

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is furnished free of charge and is based on technical data that Du Pont believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

HAZARDOUS REACTIVITY

Instability *Stable*
Incompatibility *None known*
Decomposition *Will not occur*
Polymerization *Will not occur*

HEALTH HAZARD INFORMATION

for TiO₂
Exposure Limits *OSHA Time-Weighted Average (TWA) is 15 mg/m³. The ACGIH TLV[®] TWA (Nuisance dust) is 10 mg/m³ total dust, or 5 mg/m³ respirable dust. There is some ambiguity about the OSHA limit because of the amorphous silicon dioxide content of Ti-Pure[®] R-961. DuPont believes the ACGIH limit above best covers this case and has elected to observe that limit. The ACGIH recommended limit for amorphous silica in its 1980 Notice of Intended Change is 6 mg/m³ of total dust and 3 mg/m³ respirable dust.*

Routes of Exposure and Effects According to Du Pont inhalation tests in rats, dusts from these products produce an inert or nuisance dust response in the lungs.
First Aid

PROTECTION INFORMATION

Ventilation Adequate to maintain exposure level as above.

Personal Protective Equipment If exposure limits may be exceeded, use OSHA-permissible respirator. For air concentrations to 75 mg/M³, use dust respirator. For higher concentrations and for additional information, see References below.

DISPOSAL PROCEDURES

Aquatic Toxicity TLm 96 > 1,000 ppm

Spill, Leak or Release *Shovel into container for disposal*

Waste Disposal Comply with Federal, state, and local regulations. If approved, may be removed to land disposal site.

SHIPPING PRECAUTIONS

Transportation DOT Hazard Classification: Not Regulated.

Shipping Containers Bags

Storage Conditions Store in clean, dry area

REFERENCES AND ADDITIONAL INFORMATION

See Du Pont's Ti-Pure[®] R-961 Data Sheet

For more information, refer to 29CFR1910.134; 30CFR11.130(h); DHEW (NIOSH) Publication No. 76-189, "A Guide to Industrial Respiratory Protection"; DHEW (NIOSH) Publication No. 78-210, "NIOSH/OSHA Pocket Guide to Chemical Hazards." The two NIOSH publications may be obtained from Dept. HHS/NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226, phone (513) 684-4287.

DATE: