MATERIAL SAFETY DATA SHEET

IDENTIFICATION

Name Titanium Dioxide Pigment (Slurries)
TI-PURE® R-941, R-943

Synonyms TiO_2, titania, rutile

Chemical Family Inorganic Oxide

CAS Name Titanium Oxide

CAS Registry No. 13463-67-7

I.D. Nos./Codes NIOSH Access No: TR22750

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

Address WILMINGTON, DE 19898

Product Information and Emergency Phone (302) 774-2421

Transportation Emergency Phone (800) 424-9300

HAZARDOUS COMPONENTS

Material(s)	Approximate %
Amorphous Silica	R-941 ≈ 8% (Dry Basis) } Should be consistent with MSD Sheet for R-931/R-933 MRB 1/19/81 R-943 ≈ 9% (Dry Basis) }

PHYSICAL DATA

Boiling Point, 760 mm Hg ~ 100°C (212°F)

Melting Point ~ 0°C (32°F)

Specific Gravity 1.8-1.9

Vapor Pressure Same as water (Liquid component in water)

Vapor Density Same as water

Solubility in H_2O Miscible - Dispersed Solid is insoluble

% Volatiles by Vol. at 36-38

Evaporation Rate (Butyl Acetate = 1)

Form liquid **Appearance** Opaque Dispersion

Color White **Odor** None - slight amine odor MRB 1/19/81

pH Information 7.0 - 10.0

Octanol/Water Partition Coefficient

FIRE AND EXPLOSION DATA

Flash Point **Method**
WILL NOT BURN

Autoignition Temperature

Flammable Limits in Air, % by Vol. **Lower** **Upper**

Fire and Explosion Hazards NONE

Extinguishing Media

Special Fire Fighting Instructions

HAZARDOUS REACTIVITY

Instability Stable

Incompatibility None known

Decomposition Will not occur

Polymerization Will not occur

HEALTH HAZARD INFORMATION

Exposure Limits When dried, dusts may form. OSHA Time-Weighted Average (TWA) for TiO2 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-941 and R-943. DuPont believes the ACGIH limit above but 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 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

(4p) AMK 12/17/80

Aquatic Toxicity TLm 96 > 1,000 ppm

Spill, Leak or Release Let dry or absorb with sand or other absorbent and 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 Railroad tank cars, tank trucks, and drums.

Storage Conditions

REFERENCES AND ADDITIONAL INFORMATION

See Du Pont's Ti-Pure® R-941 and R-943 Data Sheets.

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:11/11/80

RWM:abh

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