

SAFETY DATA SHEET

SECTION: 1 PRODUCT and COMPANY IDENTIFICATION

Product Name: Titanium Dioxide (all sizes)
Product Use: White pigment for applications in coating materials, printing inks, man-made fibers, plastics, paper, glass, vitreous enamels, ceramic products and more.
Company: Essential Depot, Inc.
2029 US Hwy 27 S
Sebring, Florida 33870
Phone: 863-662-0481
Emergency Phone: CHEMTREC, Inside the USA: 1-800-424-9300

SECTION: 2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification: The substance is not classified according to the Globally Harmonized System (GHS).

Label Elements

GHS label element	Not applicable
Hazard pictogram	Not applicable
Signal word	Not applicable
Hazard statement	Not applicable

Other hazards Dust load

SECTION: 3. COMPOSITION / INFORMATION INGREDIENTS

Chemical Characterization: Substances
CAS No. Description: 13463-67-7 Titanium Dioxide
EC Number: 236-675-5

SECTION: 4. FIRST AID MEASURES

General Information: No special measures required.
inhalation: Supply fresh air; consult doctor in case of complaints

SAFETY DATA SHEET

Skin Contact:	Immediately wash with water and soap and rinse thoroughly.
Eye Contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Ingestion:	Rinse out mouth and then drink plenty of water.
Most important symptoms and effect, both acute and delayed:	No further relevant information available.
Indication of any immediate medical attention and special treatment needed:	No further relevant information available.

SECTION: 5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Use fire fighting measure that suit the environment. The product is not flammable.
Special protective equipment and precautions for fire-fighters:	Use protective measures that suit the hazard conditions.
Special hazards arising from the substance or mixture:	None

SECTION: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Not required
Methods and materials for containment and cleaning up:	Avoid dust formation. Sweep or vacuum up, use type approved vacuum cleaner.
Environmental precautions	No special measures required.

SAFETY DATA SHEET

SECTION: 7. HANDLING AND STORAGE

Precautions for safe handling:

Provide vacuum dust collection if dust is formed.

The product is not flammable. Titanium Dioxide product may be packaged at temperatures of approximately 100 to 120 °C (212 to 248 °F) and stay hot for a long time depending on the ambient temperatures and inventory storage practiced. Due to the potential of elevated pigment temperature, caution should be used while handling pigment and in solvent applications.

Conditions for safe storage, including any incompatibilities:

No special requirement

Further information about storage conditions:

Store in dry conditions.

SECTION: 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters

Components with limit values that require monitoring at the workplace;

Additional Occupational Exposure Limit Values for possible hazards during processing:

CAS: 13463-67-7 Titanium Dioxide

ACGIH – TLV 10mg/m³ TWA

OSHA – PEL 15* mg/m³

*total dust, 8hr TWA

Exposure controls:

Use local exhaust ventilation if airborne concentrations would otherwise exceed applicable exposure limits.

Personal protective equipment General protective and hygienic measure:

The usual precautionary measures for handling chemicals should be followed. Titanium dioxide pigments are not irritant but as with all fine powders can absorb moisture and natural oil from the surface of the skin during prolonged exposure. Prolonged exposure should be avoided by wearing suitable protective gloves and clothing.

Breathing equipment:

If workplace exposure limits are exceeded, use respiration protection according to nation regulations. Use a NIOSH-approved respirator for particulates with N100, P100 or R100 filter. The respirator must be selected by a technically qualified individual.

Protection of Hands:

Use gloves appropriate for work conditions to minimize prolonged skin

SAFETY DATA SHEET

contact and prevent drying and subsequent irritation of skin. Check protective gloves prior to each use for their proper condition. Preventive skin protection by use of skin-protecting agents is recommended.

Eye protection: Safety Glasses
Body protection: Protective work clothing

SECTION: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder, White
Odor: Odorless
Odor Threshold: Not relevant
pH-value at 20°C (68°F): 7
Melting point/Melting range: >1800°C (>3272°F)
Boiling point/Boiling range: Not relevant
Flammability (solid, gaseous) Product is not flammable
Flash point: Not applicable
Ignition temperature: Not applicable
Danger of Explosion: Product is not explosive
Density: 20°C Anatase 3.9 g/cm³ (30 lbs/ U.S. gal.)
 Rutile 4.2 g/cm³ (35 lbs/ U.S. gal.)
Bulk density: Ca, 500-900 kg/m³ (4.2 – 7.5 lbs/U.S. gal)
Vapor density: Not applicable
Evaporation rate: Not applicable

Solubility in/ Miscibility with Water: Insoluble
Partition coefficient (n-octanol/water): Not applicable
Viscosity dynamic: Not applicable
Other Information: No further relevant information available.

SAFETY DATA SHEET

SECTION: 10. STABILITY AND REACTIVITY

Reactivity:	The substance is stable under normal use conditions
Chemical stability / Thermal decomposition / Conditions to avoid:	No decomposition under normal use conditions.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	No further data
Incompatible materials:	No further data
Hazardous decomposition products:	No dangerous decomposition products known

SECTION: 11. TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50 Oral: > 5000mg/kg (rat) (OECD 425) LD50 Dermal: > 5000 mg/kg (rabbit) LC50/4 th Inhalative: > 6.8 mg/l (rat)
Primary irritant effect:	
On the skin:	OECD 404: No irritant effect. Powderized material may dry and mechanically irritate skin.
On the eye:	OECD 405: No irritating effect. Like any foreign body, particles (dust) can cause mechanical irritation.
Sensitization:	OECD 406, OECD 429: No sensitizing effect.
Subacute to chronic toxicity:	NOARL Oral: 3500 mg/kg/d (rat) (90d) NOAEL Dermal: (-) No relevant data available NOAEC Inhalative: 10 mg/m ³ (rat) (90d)
Additional toxicological information:	In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals, such as mice and hamsters,

SAFETY DATA SHEET

Indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that may lead to lung cancer. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide.
 Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 28) through inhalation (not Ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

IARC (International Agency for Research on Cancer) 2B
NTP (National Toxicology Program) Substance is not listed
OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed

CMR effect (Carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION: 12. ECOLOGICAL INFORMATION

Toxicity to fish: Freshwater fish, Pimephales promelas
 LC50 (96h): > 1000 mg/l (static, EPA-540/9-85-006, Acute Toxicity for Freshwater Fish)
 Marine water fish: Cyprinodon variegatus
 LC50 (96h): > 10000 mg/l (semi-static, OECD 203)

Toxicity to Daphnia and other aquatic invertebrates: Freshwater, Daphnia magna
 LC50 (48h): >1000 mg/l (static, equivalent or similar to OECO 202)
 Marine water, Acarlia lonsa
 LC50 (48h): > 10000 mg/l (ISO 14669 (1999); ISO 5667-16 (1998))

SAFETY DATA SHEET

Toxicity to algae and aquatic plants:	Freshwater, Pseudokirchnerella subcapitata EC50 (72h): >100 mg/l (static, OECD 201)
	Marine water, Skeletonema costatum EC50 (72h): > 10000 mg/l (ISO 10253)
Toxicity to sediment organisms:	Freshwater, Hyalella Azteca NOEC (28d): ≥ 100000 mg/kg sediment dw (semi-static, ASTM 1706)
	Marine water, Corophium volutator NOEC (10d): ≥ 14989 mg/kg sediment dw (semi-static, OSPARCOM guidelines (1995))
Persistence and degradability:	Not relevant for inorganic substances.
Bioaccumulative potential:	Does not accumulate in organisms
Mobility in soil:	The substance is immobile in soil
Other adverse effects:	No further relevant information available.

SECTION: 13. DISPOSAL CONSIDERATION

Waste treatment methods recommendations:	Material is not a hazardous waste. Disposal must be made according to all federal, state, and local (municipal) regulations.
Uncleaned packaging recommendations:	Material is not a hazardous waste. Disposal must be made according to all federal, state, and local (municipal) regulations.

SECTION: 14. TRANSPORT INFORMATION

UN-Number DOT, ADR/RID/AND, AND, IMDG, IATA UN proper shipping name:	Not Applicable
DOT, ADR/RID/AND, AND,IMDG, IATA Transport hazard class(es)	Not Applicable
DOT, ADR/RID/AND, AND, IMDG, IATA Class	Not Applicable
Packing group DOT, ADR/RID/AND, IMDG:	Not Applicable

SAFETY DATA SHEET

IATA Environmental hazards: Not an environmentally hazardous substance

Special precautions for user: Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

SECTION: 15. REGULATORY INFORMATION

SARA Section 355 (Extremely Hazardous Substances):
Substance is not Listed
Section 313 (Specific toxic chemical listing):
Substance is not listed

TSCA and Canada DSL Status: Substance is listed

Proposition 65: Chemicals known to cause cancer
CAS: 13463-67-7 Titanium Dioxide

Additional Information: The listing is for titanium dioxide as "airborne, unbound particles of respirable size" and does not cover titanium dioxide when it remains within a product matrix.

Carcinogenic Categories

EPA (Environmental Protection Agency): Substance is not listed

TLV (Threshold Limit Value Notation established by ACGIH): A4 Not classifiable as human carcinogen

NIOSH-CA (National Institute for Occupational Safety and Health): Substance is listed.

REACH registration number: 01-2119489379-17-xxxx

Substances of very high concern (SVHC) according to REACH, Article 57: The product is not listed as SVHC, it does not contain any substances of very high concern.

SAFETY DATA SHEET

SECTION: 16. OTHER INFORMATION

Creation Date: December 6th, 2017

Revision Date: December 6th, 2021

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