

MATERIAL SAFETY DATA SHEET

PRIMARY COLOR- WHITE PC-08

SECTION 01: PRODUCT IDENTIFICATION

Product Identifier:	Titanium Dioxide
Product Use:	Concrete Color
Manufacturer's Name:	Concretech Inc., #106, 2567- 192 Street, Surrey, BC, V3S 3X1, Canada
Supplier's Name	Concretech Inc., #106, 2567- 192 Street, Surrey, BC, V3S 3X1, Canada
Preparation Date of MSDS:	October 17th, 2000
Revision Date of MSDS:	April 13 th , 2011
MSDS Prepared By:	Farhad Kazemian
Phone Number of Preparer:	1 604 210 1147
Emergency Phone Number	1 888 503 6780

SECTION 02: HAZARDOUS INGREDIENTS

Ingredients:	%	CAS#	LD/50	ACGIH TLV	Comments
Titanium Dioxide	99.5	13463-67-7	25000 mg/kg (Oral Rat)	10 mg/m3	NA

SECTION 03: HAZARDOUS IDENTIFICATION

Route of Entry:	Inhalation= Yes, Skin= Yes, Ingestion= No, Eye Contact= Yes
Skin Contact:	Possible Irritation
Skin Absorption:	Not Established
Eye Contact:	Eye contact by larger amounts of powder may cause moderate eye irritation.
Inhalation:	Dust can cause lung irritation, coughing or sneezing.
Ingestion:	No adverse effects expected.
Emergency Overview:	NA
WHMIS Symbols:	Not Regulated
Potential Health Effects:	Not Regulated

SECTION 04: FIRST AID MEASURES

Skin Contact:	Skin: Wash with soap and water immediately and rinse thoroughly. If irritation persists consult a physician..
Eye Contact:	Remove any contact lenses at once. Flush eyes with water for 5- 10 minutes. If eye irritation persists, get immediate medical attention.
Inhalation:	Remove to fresh air if swallowed. If not breathing, trained personnel should initiate artificial respirations and immediate medical attention should be obtained.
Ingestion:	If large quantities are ingested, seek medical advice.

SECTION 05: FIRE FIGHTING MEASURES

Flammable (Yes / No)	No
Yes	NA
Means of Extinction	Use appropriate extinguishing media for surrounding fire.
Flash Point (°C / Method)	NA
Upper Flammable Limit (% by Volume)	NA
Lower Flammable Limit (% by Volume)	NA
Autoignation Temperature (°C)	NA
Explosion Data- Sensitivity to	NA

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Impact	
Explosion Data- Sensitivity to Static Discharge	NA
Hazardous combustion Products	None under normal conditions
Special Fire Fighting Procedures	NA

SECTION 06: ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures	Contain spillage. Scoop up or vacuum. Avoid dust generation. Refer to applicable Provincial, state, and local regulations for current response information.
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SECTION 07: HANDLING AND STORAGE

Handling Procedures and Equipment	Maintain good personal hygiene. Avoid breathing dust. Wash thoroughly after handling. Wash or vacuum clothing that may have become dusty. Ventilate adequately, otherwise wear an appropriate breathing apparatus.
Storage requirements	Keep containers dry. Avoid high airborne dust concentrations. Protect against physical damage.

SECTION 08: EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limit	ACGIH TLV	See section 2
	OSHA PEL	See section 2
	Other	NA
Engineering Controls	General	Ventilate work area.
	Local Exhaust	Local exhaust ventilation as necessary to control any air contaminants, to within their TLVs.
	Other	Minimize dust generation and exposure.
Personal Protective Equipment	Gloves	Protective gloves
	Respirator	If dusty conditions prevail, wear a properly fitted NIOSH approved dust respirator
	Eye	Wear safety glasses with side shields.
	Footwear	Not specified.
	Clothing	Adequate protective clothing
	Other	Eye wash facility should be in close proximity.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	powder
Odor and Appearance	No odor, white powdery appearance
Odor Threshold (ppm)	NA
Specific Gravity	3.8 – 4.2 (H ₂ O= 1)
Vapor Density (air = 1)	NA
Vapor Pressure (mmHg)	NA
Evaporation Rate	NA
Flammability Class	Non-flammable
Boiling Point °C	2500- 3000 C
Freezing Point °C	Approx. 1840 C
Volatile % By Weight	0.5 % max.
PH	5.0 – 8.5
Coefficient of Water / Oil Distribution	NA
Solubility in Water	Insoluble

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SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable, under normal condition
Incompatibility With Other Substances	NA
Reactivity	Generally considered stable.
Hazardous Decomposition Products	None under normal conditions

SECTION 11: TOXICOLOGICAL INFORMATION

Effects on Acute Exposure	Refer to route of entry, Section 3
Effects on Chronic Exposure	Nuisance dust, avoid chronic inhalation
Irritancy of Product	Mild irritant
Skin Sensitization	NA
Respiratory sensitization	NA
Eye Sensitization	Possible irritation
Ingestion	No adverse effects expected
Carcinogenicity	In an inhalation study, a toxicological lab found evidence of lung cancer (malignant tumors) in one out of every 77 male rats and 13 out of 74 female rats after they were exposed to 250 mg/ m3 Titanium Dioxide repairable dust for a two-year period. No compound related tumors were found in rats at the 10 or 50 mg/ m3 exposure levels. The exposure level of 250 mg/ m3 is approximately 50 times that permitted in an occupational environment. To our knowledge, no such results have been experienced by humans. The National Cancer Institute (NCI) conducted a feeding study in rats and mice in which either 25000 or 50000 ppm Titanium Dioxide was given in their diet for two years. Under the conditions of the NCI test, Titanium Dioxide did not cause by the oral route. Not listed as a carcinogen by NTP, IARC and OSHA. Not listed as a carcinogen.
Other Toxicity Information	NA
IARC (1,A2 or 2B)	Not listed
ACGIH (A1, A2 or A3)	See section 2
Reproductive Toxicity	No reproductive effects.
Teratogenicity	Not Established
Embryotoxicity	Not Established
Mutagenicity	Not Established
Name of Synergistic Products / Effects	NA

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity	NA
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SECTION 13: DISPOSABLE CONSIDERATION

Waste Disposal	Dispose in accordance with current federal, state, provincial and local regulations. This is not a regulated product.
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SECTION 14: TRANSPORT INFORMATION

Special Shipping Information	
PIN	Not Regulated
TDG	Not Regulated
DOT	Not Regulated

CONCRETECH

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IMO	Not Regulated
ICAO	NA
ERAP	NA

SECTION 15: REGULATORY INFORMATION

WHMIS Classification	NA
OSHA	See section 2
Other	NA
TSCA	Not Regulated
DSL / TOSCA	Not Regulated

SECTION 16: OTHER INFORMATION

Regulatory Information	
SARA & WHMIS	This product is not considered as a hazardous substance as defined by SARA title 111 regulations (40 CFR 372).
SARA Section 313 Listed Ingredients	This product does not contain any substance that is subject to the reporting requirements of 40 CFR 372. SARA Classification: Listed.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It is provided solely for the customer's consideration, and verification. Hereby specifically claims. It shall not be held liable for any damage resulting from handling or from contact with the above products.