

# MATERIAL SAFETY DATA SHEET (MSDS)

This MSDS format adheres to the standards and regulatory requirements of the United States. The MSDS was prepared using the guidelines provided by the American National Standards Institute (ANSI) Form Z400.1 – 1993.



## **Section 1: Chemical Product and Company Identification**

Material Identification: TIOPREM® BEIGE

Formula: TiO<sub>2</sub>, Titanium Dioxide

Company Identification: TOR Minerals International Inc.  
722 Burleson Street  
Corpus Christi, TX 78402

Emergency Phone Numbers: Phone: (361) 883-5591 ext. 10  
Fax: (361) 883-7619

Date Prepared: March 2014

## **Section 2: Composition, Information or Ingredients**

Components

<u>Materials</u>	<u>CAS Number</u>	<u>%</u>
Titanium Dioxide	1317-80-2	90 - 97
Amorphous Silica	7631-86-9	0.50 - 1.25
Ferric Oxide	1309-37-1	0.5 - 2.0
Zinc Oxide	1314-13-2	0.0 - 1.0

This product is subject to the reporting requirements of SARA 313. Zinc Oxide is present in quantities above the applicable deminimis concentration and are listed as toxic chemicals in 40 CFR part 372.

## **Section 3: Hazard identification**

Potential Health Effects:

- Eye contact may cause eye irritation with tearing, pain or blurred vision.
- Repeated skin contact with titanium dioxide may cause drying or cracking of the skin to sensitive individuals. Short term overexposure by inhalation to Titanium Dioxide may cause irritation of nose, throat, and lungs with cough, difficulty breathing or shortness of breath.

Carcinogenicity Information:

The following components are listed by IARC, NTP, OSHA, ACGIH, as carcinogenicity:

Materials ..... IARC NTP OSHA ACGIH  
TITANIUM DIOXIDE ..... 2B

#### **Section 4: First Aid Measures**

- Inhalation: If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.
- Skin Contact: The compound is not likely to be hazardous by skin contact but cleaning skin after use is advisable.
- Eye Contact: In case of contact, immediately flush eye with plenty of water for at least 15 minutes. Consult a physician.
- Ingestion: Consult a physician if a large quantity is ingested.

#### **Section 5: Fire Fighting Measures**

- Flammable Properties: Will not burn or support combustion.
- Extinguishing Media: As appropriate for surrounding combustibles.
- Fire Fighting Instructions: None

#### **Section 6: Accidental Release Measures**

##### Safeguard (personnel)

Note: Review Fire Fighting Measures and handling (personnel) section before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up. Refer to Personal Protective Equipment Section for choice of PPE

##### Accidental Release Measures

For dry product, shovel into a covered container for disposal. Flush residue to wastewater treatment system.

#### **Section 7: Handling and Storage**

##### Handling (personal)

Avoid breathing dust. Please remember to use good industrial hygienic practices.

##### Storage

All Titanium dioxide grades are packaged in paper or plastic bags should not be stacked more than three pallets high. Protect containers from damage.

#### **Section 8: Exposure Controls and Personal Protection**

- Engineering Controls: Good general ventilation should be provided to keep dust concentration below exposure limits.
- Personal Protective Equipment: If the potential exist for exposure limits to be exceeded for dust or dried-down product, a NIOSH approved air purifying respirator with appropriate particulate filter (Type 100) should be used.
- Exposures Guidelines:

##### Applicable Exposures Limits:

##### Titanium Dioxide

PEL	(OSHA)	15 mg/m <sup>3</sup> , total dust, 8 Hr. TWA
TLV	(ACGIH)	10 mg/m <sup>3</sup> , total dust, 8 Hr. TWA A4

Amorphous Silica

PEL	(OSHA)	80 mg/m <sup>3</sup> / % SiO <sub>2</sub> – 8 Hr. TW
TLV	(ACGIH)	10 mg/m <sup>3</sup> / 8 and 12 Hr. TWA, respirable dust

**Section 9: Physical and Chemical Properties**

Physical Data

Boiling Point.....	2500-3000 C
Vapor Pressure.....	Not Volatile
Vapor Density .....	Not Volatile
Melting Point.....	About 1840 C
Evaporation Rate.....	Not Volatile
Solubility in Water.....	Insoluble
pH .....	6-8
Specific Gravity.....	4.1
Color and odor.....	Beige with no odor

**Section 10: Stability and Reactivity**

Chemical Stability .....	Stable & inert
Incompatibility with other Chemicals .....	Not reasonably foreseeable
Decomposition.....	Decomposition will not occur
Polymerization .....	Polymerization will not occur

**Section 11: Toxicological Information**

Titanium dioxide contains amorphous silica.

Amorphous Silica	This product contains Amorphous Silica which is a mild eye irritant and is a negligible to slight skin irritant when tested as a 50% aqueous past in animals. Amorphous Silica dust is not expected to be a skin irritant. Animal testing indicates amorphous Silica is not a skin sensitizer.  The product contains titanium dioxide which is a slight eye irritant and a skin irritant, but is not a skin sensitizer in animals
------------------	---

**Section 12: Ecological Information**

None known; product is non-biodegradable.

**Section 13: Disposal Consideration**

Waste Disposal	Comply with Federal, State, and local regulation. If approved, remove to land disposal area.
----------------	--

**Section 14: Transportation Information**

Shipping Information            Not regulated as a hazardous materials by DOT, IMO, or IATA  
Shipping                            Tank Cars, Tank Trucks, Flexible Intermediate Bulk Containers,  
   Tote Bins, Bags

**Section 15: Regulatory Information**

U.S. Federal Regulations

TSCA Inventory Status.....Reported/Included

Titanium Dioxide is not subjected to reporting requirements under section 313

Lists:

Extremely Hazardous Substance ..... No

CERCLA Hazardous Substance..... No

Toxic Chemical ..... No

**Section 16: Other Information**

NPCA-HMIS Rating

Health ..... 1

Flammability ..... 0

Reactivity ..... 0

Personal Protection ..... E

