

# MATERIAL SAFETY DATA SHEET

---

## SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

---

Manufacturer/Distributor: Kobo Products, Inc.  
Address: 3474 South Clinton Avenue  
South Plainfield, NJ 07080, USA  
Emergency Telephone #: (908) 757-0033  
Facsimile Number: (908) 757-0905  
Trade Name: **BTD-11S2**  
INCI: Titanium Dioxide (And) Triethoxycaprylylsilane  
Chemical Name: Titanium Dioxide (And) Octyltriethoxysilane  
Material Uses: Pigment, component in personal care products

---

## SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

---

<u>Ingredient</u>	<u>CAS #</u>	<u>EINECS #</u>
Titanium Dioxide	13463-67-7	236-675-5
Triethoxycaprylylsilane	2943-75-1	220-941-2

---

## SECTION 3: HAZARD IDENTIFICATION

---

**Physical State and Appearance:** Solid (characteristic odor, fine white powder)  
**Emergency Overview:** May cause respiratory tract, eye and skin irritation.  
**Routes of Entry:** Eye contact and Inhalation. Ingestion (not anticipated).

### Potential Acute Health Effects

**Eyes:** May cause eye irritation. Symptoms include itching and redness after contact.  
**Skin:** May cause mild skin irritation. Symptoms include itching and redness after contact.  
**Inhalation:** May cause respiratory tract irritation. Symptoms include coughing, wheezing or shortness of breath when inhaled.  
**Ingestion:** Not an intended route of exposure. May be hazardous in case of ingestion. Symptoms include gastrointestinal tract upset and diarrhea.

### Potential Chronic Health Effects

Additional information See Toxicological information (section 11)

**Medical Conditions Overexposure:** Aggravated by Repeated or prolonged inhalation of any dust particulate may aggravate respiratory medical conditions.

---

## SECTION 4: FIRST AID MEASURES

---

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If symptoms persist, seek medical attention.  
**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reusing. Thoroughly clean shoes before reuse. If symptoms develop, seek medical attention.  
**Inhalation:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, seek medical attention.  
**Ingestion:** Do not ingest. If this material is swallowed, call a physician immediately. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

---

## SECTION 5: FIRE FIGHTING MEASURES

---

**Flash point:** N/A  
**Fire Fighting Media and Instructions:** In case of fire, use water spray (fog), foam, dry chemical, or CO2  
**Protective Clothing (fire):** Wear self-contained breathing apparatus and full protective clothing.

---

## SECTION 6: ACCIDENTAL RELEASE MEASURES

---

**Small Spill and Leak:** Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional regulatory requirements.

**Large Spill and Leak:** Use appropriate tools to put the spill material into a labeled waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional regulatory requirements. Check TLV in section 8 of MSDS and with local authorities.

**Spill Kit information:** No specific spill kit required for this product.

---

### SECTION 7: HANDLING AND STORAGE

---

**Handling:** Avoid generating dust. Avoid breathing dust. Use only with adequate ventilation. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Keep container closed. Wash thoroughly after handling.

**Storage:** Keep container dry. Keep containers sealed until ready for use.

---

### SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

---

<u>Component</u>	OSHA		ACGIH	
	<u>TWA</u>	<u>PEL</u>	<u>TWA</u>	<u>TLV</u>
TiO <sub>2</sub>	15 mg/m <sup>3</sup>		10 mg/m <sup>3</sup>	

#### Personal Protection:

**Eye:** Safety glasses with side shields or goggles

**Body:** Lab coat

**Respiratory:** Use NIOSH/MSHA approved air-purifying respirator as needed to control exposure.

**Hand:** Recommended: Gloves

---

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

---

Boiling Point (°C):	N/A	Percent Volatile By Vol. (%):	< 1
Freezing Point (°C):	N/A	Vapor Density (Air=1):	N/A
Melting Point (°C):	> 1000	Evaporation Rate (Buac=1):	N/A
Vapor Pressure (mm hg):	N/A	Solubility In Water:	Insoluble
Bulk Density (g/cbi.):	3.6-4.1	Appearance & Odor:	White powder with characteristic odor

---

### SECTION 10: STABILITY AND REACTIVITY

---

**Stable:** Stable

**Hazardous Polymerization:** None

**Incompatibility:** Strong acids and strong oxidizing agents.

**Hazardous Decomposition Products:** Incomplete combustion can produce carbon monoxide, carbon dioxide and nitrous dioxide.

---

### SECTION 11: TOXICOLOGICAL INFORMATION

---

Titanium Dioxide\*

Skin Irritation: Dermal LD<sub>50</sub> > 10 g/kg (rabbit)

Primary Eye Irritation: Non-irritating, Draize score = 0.00 (rabbit)

Acute Oral Toxicity: Non-toxic, LD<sub>50</sub> > 25 g/kg (rat)

Inhalation LC<sub>50</sub>: >6.82 mg/L (4 hour)

\*: Trochimowicz.. et. Al., J. Appl. Tox., 8, 383-385 (1988)

**Chronic Effects on Humans** **CARCINOGENIC EFFECTS:** Classified None by NIOSH [Titanium Dioxide]. Classified A4 (not classifiable for human or animal) by ACGIH. Classifiable Group 2B (Possibly carcinogenic to humans) by IARC [Titanium Dioxide].

**MUTAGENIC EFFECTS:** Not available.

**TERATOGENIC EFFECTS:** Not available.

**DEVELOPMENTAL TOXICITY:** Not available.

Repeated or prolonged exposure to the substance at concentrations above exposure limits may cause respiratory damage.

Target Organs: eyes, lungs, skin.

**Acute Effects on Humans** May cause skin, eye, and respiratory irritation.

**Sensitization** Repeated or prolonged exposure to the substance at concentrations above the exposure limits may cause respiratory tract and lung sensitization.

**SECTION 12: ECOLOGICAL INFORMATION****Toxicity of the Products of Biodegradation:** N/A**SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of according to all federal, state and local regulations.

**SECTION 14: TRANSPORT INFORMATION**

**DOT Classification:** Not regulated  
**TDG Classification:** Not regulated  
**IMO/IMDG Classification:** Not regulated  
**ICAO/IATA Classification:** Not regulated

**SECTION 15: REGULATORY INFORMATION**

**This product or its components are on the following inventories:** European Inventory of Existing Commercial Chemicals  
Australia Inventory of Chemical Substances  
Japan Inventory of Existing & New Chemical Substances  
Canada DSL Inventory

**California Proposition 65:** WARNING! This product contains a chemical known to the State of California to cause cancer: Titanium Dioxide (airborne, unbound particles of respirable size) The listing does not cover Titanium Dioxide when it remains bound within a product matrix.

**SECTION 16: OTHER INFORMATION****Hazardous Material Information System (U.S.A.)** [Ratings Key: 4= Highest hazard, 0= Lowest hazard]

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	F

Date Prepared: January 10, 2003  
Date Revised: July 18, 2006  
Date Revised: July 8, 2009  
Date Revised: December 7, 2011

**Note:** The statements made here are based upon technical data that Kobo Products Inc. believes to be reliable, are intended to describe the product with regard to necessary safety precautions. They do not guarantee special characteristics. This information is furnished without warranty, expressed or implied, except that it is accurate to the best of our current knowledge.