



Material Safety Data Sheet - Powder

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Product Name: KRONOS® TITANIUM DIOXIDE

Product Code(s): ALL GRADES

2.

Product Composition

Product Classification: Titanium Dioxide

Component(s):	C.A.S. No.	Percent:
<ul style="list-style-type: none">• Titanium Dioxide (Some grades may be surface-treated with the following components):	<ul style="list-style-type: none">• 13463-67-7	<ul style="list-style-type: none">• 80 - 100
<hr/> <ul style="list-style-type: none">• Aluminum Hydroxide	<ul style="list-style-type: none">• 21645-51-2	<ul style="list-style-type: none">• 0-9
<hr/> <ul style="list-style-type: none">• Amorphous Silica	<ul style="list-style-type: none">• 112926-00-8	<ul style="list-style-type: none">• 0-11

3.

Hazard Identification

Warning:

- May cause mechanical eye irritation.
- Nuisance Dust: Long term exposure to airborne concentrations above the recommended exposure limits may cause lung damage.

Protective Measures:

- Avoid contact with the eyes.
- Use in well ventilated areas.
- Do not breathe dust.

4.

First Aid Measures

Inhalation:

- Remove person to fresh air. If breathing is difficult, provide oxygen and seek medical attention.

Eye Contact:

- Rinse eyes immediately with water for at least 15 minutes. See a physician.

Skin Contact:

- Wash skin thoroughly with soap and water. See a physician if irritation persists.

Ingestion:

- Provide symptomatic treatment and seek prompt medical attention.

5.**Fire Fighting Methods**

- **Flash Point:** N.A.
- **Method:** N.A.
- **LEL:** N.A.
- **UEL:** N.A.

Extinguishing Media/Fire Fighting Procedures:

- Use the following extinguishing media when fighting fires involving this material: water fog, foam, dry chemical or carbon dioxide.

Unusual Hazards:

- Normal precautions for dusts should be provided. Avoid high concentrations of dust in air.

6.

Accidental Release Measures

Release Response

- Minimize dusting. **CAUTION:** May cause a slippery condition when wet. Sweep/shovel up and transfer into a suitable container for re-use or disposal.

Personal Protective Equipment:

- Wear a MSHA/NIOSH approved (or equivalent) air-purifying respirator equipped with filters for protection against dusts and mists. Wear cotton or canvas gloves. Wear safety glasses (ANSI 287.1 or approved equivalent).

7.

Handling And Storage

Handling:

- Avoid high concentrations of dust in air through the use of ventilation or other suitable controls.

Storage:

- This material is not hazardous under normal operating conditions.

8.

Exposure Control Information

Occupational Exposure Limits:

	ACGIH-TLV	OSHA-PEL
Titanium Dioxide	8hr. TWA-10mg/m ³ , total	8hr. TWA-10mg/m ³ , total
Nuisance Dust	8hr. TWA-5mg/m ³ , respirable	8hr. TWA-5mg/m ³ , respirable
Aluminum Hydroxide	Not Established	Not Established
Amorphous Silica	10mg/m ³	10mg/m ³

Engineering Control Measures:

- Use local exhaust ventilation if airborne concentrations exceed recommended exposure limits.

Personal Protection Equipment:

- **Respiratory:**
Use an air-purifying respirator equipped with filters for protection against dusts and mists.
- **Hand:**
Use cotton or canvas gloves.
- **Eye:**
Eye protection worn must be compatible with respiratory protection system employed.

Other Control Measures:

- Use good industrial hygiene practices. Wash hands and face before eating and drinking.

9.

Properties

- **Appearance:** White powder
- **Odor:** None
- **pH:** N.A.
- **Boiling Range:** N.A.
- **Melting Range:** > 1000 degrees C
- **Specific Gravity:** 3.7 - 4.2
- **Solubility:** Insoluble
- **Vapor Density:** Heavier than air
- **Vapor Pressure:** N.A.
- **% Volatile:** 0
- **Freezing Point:** N.A.
- **Density at 20 degrees C:** 30-35 lbs/gal

10.

Reactivity Information

Conditions To Avoid:

Avoid contact with metals at high temperatures.

Hazardous Polymerization:

Hazardous polymerization will not occur.

Hazardous Decomposition:

Hazardous decomposition will not occur.

Stability:

This material is stable under normal operating conditions.

11.

Health/Toxicity Information

Health Hazards

Effects of Acute Exposure

- **Inhalation:**
Inhalation of dust can cause irritation of the nose, throat, and lungs.
- **Eye Contact:**
Like any foreign body, particles can cause mechanical irritation.
- **Skin Contact:**
This material can cause irritation if not promptly washed from the skin.
- **Skin Absorption:**
This product is not expected to be absorbed through intact skin.
- **Ingestion:**
This material is not expected to produce adverse effects.
- **Effects of Chronic Over Exposure:**
As with any nuisance dust, long-term exposure to concentrations above the recommended exposure limits may overload the lung clearance mechanism and cause adverse lung effects and shortness of breath.
- **Listed as a suspected or known carcinogen on:**
 - **IARC:** No
 - **NTP:** No
 - **OSHA:** No
- **Medical Conditions Aggravated:** Respiratory disorders.
- **Toxicity Information:**
Acute Oral LD50 (Rat): > 7,500 mg/kg (TiO₂).

12.

Environmental/Disposal Considerations

Environmental Hazards:

- None known.

13.

Disposal Considerations

- Dispose of in accordance with local, state, and federal regulations. Use a licensed waste handler.

14.

Transportation

Shipping Name: Titanium Dioxide

Label: N.A.

Hazard Class: Not regulated

Packing Group: N.A.

UN#: N.A.

15.

Regulatory Information

Chemical Inventories: In compliance denotes that all components are on the inventory or exempt.

U.S. TSCA Inventory: In Compliance

European Inventory: In Compliance

Canadian Inventory: In Compliance

Japanese Inventory: In Compliance

Australian Inventory: In Compliance

Korean Inventory: In Compliance

SARA 313 Information: Not regulated.

Other Regulatory Information: This product is WHMIS controlled.

16.

Other Information

H.I.M.S. Codes

Health: 1

Flammability: 0

Reactivity: 0

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N/A = Not Applicable

* = Components in TSCA Inventory

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