



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Barium titanate(IV) nanopowder (200 nm particle size): sc-351721



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Barium titanate(IV) nanopowder (200 nm particle size)  
**Product Number:** sc-351721  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, CA 95060  
800.457.3801 or 831.457.3800  
**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

#### OSHA Hazards

Target Organ Effect. Toxic by inhalation. Harmful by ingestion.

#### Target Organs

Heart, Nerves., Kidney, Gastrointestinal tract, Bone marrow, Spleen.

#### GHS Classification

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 4)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

#### Hazard statement(s)

H302 + H332

Harmful if swallowed or if inhaled.

#### Precautionary statement(s)

none

#### HMIS Classification

**Health hazard:** 2'

**Chronic Health Hazard:** \*

**Flammability:** 0

**Physical hazards:** 0

#### NFPA Rating

**Health hazard:** 2

**Fire:** 0

**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation:** Toxic if inhaled. May cause respiratory tract irritation.

**Skin:** Harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** Harmful if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Formula:** BaO<sub>3</sub>Ti

**Molecular Weight:** 233.19

<i>CAS-No.</i>	<i>EC-No.</i>	<i>Index-No.</i>	<i>Concentration</i>
<b>Barium titanium trioxide</b> 12047-27-7	234-975-0	056-002-00-7	-

#### **4. FIRST AID MEASURES**

##### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

##### **In case of eye contact**

Flush eyes with water as a precaution.

##### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **5. FIREFIGHTING MEASURES**

##### **Conditions of flammability**

Not flammable or combustible.

##### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### **Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

##### **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions - Titanium/titanium oxides, barium oxide

#### **6. ACCIDENTAL RELEASE MEASURES**

##### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

##### **Environmental precautions**

Do not let product enter drains.

##### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### **7. HANDLING AND STORAGE**

##### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

##### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. Store at room temperature.

#### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

##### **Personal protective equipment**

##### **Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### **Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	powder	pH	no data available
Melting point/freezing point	no data available	Boiling point	no data available
Flash point	not applicable	Ignition temperature	no data available
Autoignition temperature	no data available	Lower explosion limit	no data available
Upper explosion limit	no data available	Vapor pressure	no data available
Water solubility	no data available	Relative vapor density	no data available
Odor	no data available	Odor Threshold	no data available
Density	6.08 g/cm <sup>3</sup> at 25 °C (77 °F)	Partition coefficient: n-octanol/water	no data available
Evaporation rate	no data available		

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents. Strong acids

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Titanium/titanium oxides, barium oxide

### Other decomposition products

no data available

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Oral LD50:** LD50 Oral - rat - > 12,000 mg/kg

**Inhalation LC50:** no data available

**Dermal LD50:** no data available

**Other information on acute toxicity:** no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Teratogenicity**

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

**Inhalation:** Toxic if inhaled. May cause respiratory tract irritation.

**Skin:** Harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** Harmful if swallowed.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

no data available

**Additional Information**

**RTECS:** XR1437333

## 12. ECOLOGICAL INFORMATION

**Toxicity**

no data available

**Bioaccumulative potential**

no data available

**PBT and vPvB assessment**

no data available

**Persistence and degradability**

no data available

**Mobility in soil**

no data available

**Other adverse effects**

no data available

## 13. DISPOSAL CONSIDERATIONS

**Product**

Contact a licensed professional waste disposal service to dispose of this material. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

## 15. REGULATORY INFORMATION

**OSHA Hazards**

Target Organ Effect. Toxic by inhalation. Harmful by ingestion.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

Barium titanium trioxide

CAS-No.: 12047-27-7

**SARA 311/312 Hazards**

Acute Health Hazard. Chronic Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

Barium titanium trioxide

CAS-No.: 12047-27-7

**New Jersey Right To Know Components**

Barium titanium trioxide

CAS-No.: 12047-27-7

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

9/10/2012