

## SAFETY DATA SHEET: Barium Titanate(IV)

Version: 3.4

Revision Date: 03/04/2020

### Section 1: Identification

#### 1.1) Product identifier:

Product Name : Barium Titanate(IV)  
Synonyms : Barium Titanium Trioxide  
Product Number : SU0502, Su0505, SU0509, SU0510, SU0519, SU0520, SU0521,  
SU0522, SU0524, SU0525, SU0526  
CAS Number : 12047-27-7

#### 1.2) Company information:

Address: MSE Supplies, LLC  
4400 E Broadway Blvd, Suite 600  
Tucson, AZ 85711, USA  
Telephone: +1 520-789-6673  
Email: [info@mse-supplies.com](mailto:info@mse-supplies.com)  
Emergency Telephone : +1-703-527-3887

#### 1.3) Relevant identified uses of the substance or mixture and uses advised against:

Identifies uses: Laboratory chemicals, Synthesis of substances

### Section 2: Hazard(s) Identification

#### 2.1) Classification of the substance or mixture GHS classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

#### 2.2) GHS Label elements, including precautionary statements:

Pictograms:



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**Single word:** Warning

**Hazard Statement(s)**

H302 + H332

Harmful if swallowed or if inhaled.

**Precautionary Statement(s)**

P261

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264

Wash skin thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P301 + P312 + P330

IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell. Rinse mouth.

P304 + P340 + P312

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P501

Dispose of contents/ container to an approved waste disposal plant.

**2.3) Hazards not otherwise classified (HNOC) or covered by GHS:**

None

### Section 3: Composition/Information on Ingredients

**3.1) Substances:**

Formula: BaTiO<sub>3</sub>  
 Molecular Weight: 233.19 g/mol  
 CAS Number: 12047-27-7  
 EC Number: 234-975-0  
 Index Number: 056-002-00-7

Component	Classification	Concentration
Barium titanium trioxide	Acute Tox. 4; H302, H332	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

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### Section 4: First-Aid Measures

#### **4.1) Description of first aid measures:**

##### **General advice**

Move out of dangerous area.

##### **If inhaled**

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

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

Wash off with soap and plenty of water.

##### **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.

#### **4.2) Most important symptoms and effects, both acute and delayed:**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

#### **4.3) Indication of any immediate medical attention and special treatment needed:**

No data available

### Section 5: Fire-Fighting Measures

#### **5.1) Suitable extinguishing media:**

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

#### **5.2) Special hazards arising from the substance or mixture:**

Titanium/titanium oxides, Barium oxide

#### **5.3) Advise for firefighters:**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4) Further information:**

No data available

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### Section 6: Accidental Release Measures

#### **6.1) Personal precautions, protective equipment, and emergency procedures:**

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

For personal protection see section 8.

#### **6.2) Environmental precautions:**

Do not let product enter drains.

#### **6.3) 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.

#### **6.4) Reference to other sections:**

For disposal see section 13.

### Section 7: Handling and Storage

#### **7.1) Precautions for safe handling:**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

#### **7.2) Conditions for safe storage, including any incompatibilities:**

Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): 11: Combustible Solids

#### **7.3) Specific end use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### Section 8: Exposure Controls/Personal Protection

#### **8.1) Control parameters:**

##### **Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

#### **8.2) Exposure controls:**

##### **Appropriate engineering controls:**

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

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

###### **Eye/face 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 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.

###### **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.

###### **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).

###### **Control of environmental exposure:**

Do not let product enter drains.

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Section 9: Physical and Chemical Properties

**9.2) Information on basic physical and chemical properties:**

a) Appearance (physical state, color, etc.)	Solid, Crystal
b) Upper/lower flammability or explosive limits	No data available
c) Odor	No data available
d) Odor threshold	No data available
e) Vapor pressure	No data available
f) Vapor density	No data available
g) pH	No data available
h) Density	6.08 g/cm <sup>3</sup>
i) Melting point/freezing point	No data available
j) Solubility(ies)	No data available
k) Initial boiling point and boiling range	No data available
l) Flash point	No data available
m) Evaporation rate	No data available
n) Flammability (solid, gas)	No data available
o) Partition coefficient: n-octanol/water	No data available
q) Auto-ignition temperature	No data available
r) Decomposition temperature	No data available
s) Viscosity	No data available
t) Explosive properties	No data available
u) Oxidizing properties	No data available

**9.2) Other Safety information:**

No data available

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Section 10: Stability and Reactivity

**10.1) Reactivity:**

No data available

**10.2) Chemical Stability:**

Stable under recommended storage conditions.

**10.3) Possibility of hazardous reactions:**

No data available

**10.4) Conditions to avoid:**

No data available

**10.5) Incompatible materials:**

Strong oxidizing agents, Strong acids

**10.6) Hazardous decomposition products:**

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

Other decomposition products - No data available

In the event of a fire: see section 5.

Section 11: Toxicological Information

**11.1) Information on toxicological effects:**

**Acute toxicity:**

LD50 Oral - Rat - > 12,000 mg/kg

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation:**

No data available

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**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.

**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 on OSHA's list of regulated carcinogens.

**Reproductive toxicity:**

No data available

**Specific target organ toxicity – single exposure:**

No data available

**Specific target organ toxicity – repeated exposure:**

No data available

**Aspiration hazard:**

No data available

**Additional information:**

RTECS: XR1437333

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



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**12.1) Toxicity:**

No data available

**12.2) Persistence and degradability:**

No data available

**12.3) Bioaccumulative potential:**

No data available

**12.4) Mobility in soil:**

No data available

**12.5) Results of PBT and vPvB assessment:**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6) Other adverse effects:**

No data available

Section 13: Disposal Considerations

**13.1) Waste treatment methods:**

**Product:**

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

**Contaminated packaging:**

Dispose of as unused product.

Section 14: Transport Information

**DOT (US):**

Not dangerous goods

**IMDG:**

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Not dangerous goods

**IATA:**

Not dangerous goods

Section 15: Regulatory Information

**SARA 302 Components:**

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 #	Revision Date
	12047-27-7	2015-07-08

**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 #	Revision Date
	12047-27-7	2015-07-08

**New Jersey Right To Know Components:**

Barium titanium trioxide	CAS #	Revision Date
	12047-27-7	2015-07-08

Section 16: Other Information

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.



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MSE Supplies LLC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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