



Material Safety Data Sheet

Barium Sulfate

MSDS# 02510

Section 1 - Chemical Product and Company Identification

MSDS Name: Barium Sulfate  
Catalog Numbers: B68-500, B75-12, B75-212, B75-250LB, B75-500  
Synonyms: Artificial barite; enamel white; permanent white; sulfuric acid barium salt.  
Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
For information in the US, call: 201-796-7100  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

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CAS#: 7727-43-7  
Chemical Name: Barium sulfate  
%: >99  
EINECS#: 231-784-4  
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Hazard Symbols: None listed  
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! May cause respiratory tract irritation. May cause eye and skin irritation. May cause lung damage. Target Organs: Lungs.

Potential Health Effects

Eye: Dust may cause mechanical irritation.  
Skin: Dust may cause mechanical irritation.  
Ingestion: No hazard expected in normal industrial use.  
Inhalation: No hazard expected in normal industrial use.  
Chronic: Repeated exposure may cause baritosis characterized by deposition of particulate matter in the lung.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.  
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.  
Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid.  
Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn.  
Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.  
Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Not available  
Lower:

Explosion Limits: Not available  
Upper:

NFPA Rating: health: 1; flammability: 0; instability: 0;

#### Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

#### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Barium sulfate	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable dust)	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)

OSHA Vacated PELs: Barium sulfate: 10 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear impervious gloves.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white to yellow

Odor: odorless

pH: Not available

Vapor Pressure: Not applicable.

Vapor Density: Not applicable.

Evaporation Rate: Negligible.

Viscosity: Not applicable.

Boiling Point: Not applicable.

Freezing/Melting Point: 1580 deg C ( 2,876.00°F)

Decomposition Temperature: Not available

Solubility in water: Insoluble

Specific Gravity/Density: 4.4 (Water=1)

Molecular Formula: BaSO<sub>4</sub>

Molecular Weight: 233.4

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Dust generation.

Incompatibilities with Other Materials: Not available

Hazardous Decomposition Products: Oxides of sulfur, barium fume.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7727-43-7: CR0600000 CR0630000

LD50/LC50: RTECS: Not available.

Carcinogenicity: Barium sulfate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 22 Do not breathe dust.

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 7727-43-7: 0

Canada

CAS# 7727-43-7 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7727-43-7 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 7727-43-7 is listed on the TSCA  
Inventory.

**REVIEWED**

Section 16 - Other Information  
MSDS Creation Date: 12/12/1997  
Revision #9 Date 7/20/2009

DATE: MAY 23/2012  
*Chuteford*

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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