



R. E. Carroll, Inc.

Raw Materials • Fillers • Petroleum Products



BARIIUM SULFATE

MSDS

1. Product Identification

Synonyms: Naturally occurring barium sulfate.**CAS No.:** 7727-43-7**Chemical Name:** Barium Sulfate**Chemical Formula:** BaSO₄**Product Codes:** ExBAR 200, ExBAR 325, ExBAR 400, ExBAR 4, ExBAR F & ExBAR OW 200, OW 325, OW 400, OW 5, OW 3

2. Composition / Information on Ingredients

Barite is a naturally occurring mineral, which may, depending upon its occurrence, contain minor amounts of the following:

Ingredient	CAS No	Percent	Hazardous
Clay	1332-58-7	1% - 5%	No
Quartz	14808-60-7	0.1% - 3%	Yes
Calcite	471-34-1	1% - 5%	No

3. Hazards Identification

Hazard Overview

CAUTION! - ACUTE HEALTH HAZARD. May cause eye, skin, and respiratory irritation. May be harmful if swallowed.**DANGER! - CHRONIC HEALTH HAZARD.** Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposures below recommended exposure limits. Wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Review the Material Safety Data Sheet (MSDS) for this product, which has been provided to your employer.

4. First Aid Measures

Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Skin: Wash with soap and water. Get medical attention if irritation persists.
Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.
Notes to Physician: Not Applicable

5. Fire Fighting Measures

Flash Point/Range: Not Determined
Autoignition Temperature: Not Determined
Flammability Limits in Air - Upper (%): Not Determined
Special Exposure Hazards: Not applicable.
NFPA Ratings: Health 1, Flammability 0, Reactivity 0

Flash Point Method: Not Determined
Flammability Limits in Air - Lower (%): Not Determined
Fire Extinguishing Media: All standard firefighting media.
Special Protective Equipment for Fire Fighters: Not applicable.
HMS Ratings: Flammability 0, Reactivity 0, Health 1

6. Accidental Release Measures

Personal Precautionary Measures: Use appropriate protective equipment. Avoid creating and breathing dust.
Environmental Precautionary Measures: None known.
Procedure for Cleaning / Absorption: Collect using dustless method and hold for appropriate disposal. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage and disposal.

7. Handling and Storage

Handling Precautions: This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH certified, European Standard En 149, or equivalent respirator when using this product. Material is slippery when wet.
Storage Information: Store in a cool, dry location. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Do not reuse empty container.

8. Exposure Controls / Personal Protection

Engineering Controls: Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits listed in Section 2.
Respiratory Protection: Wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product.
Hand Protection: Normal work gloves.
Skin Protection: Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.
Eye Protection: Wear safety glasses or goggles to protect against exposure.
Other Precautions: None known.

9. Physical and Chemical Properties

Appearance:	Powder - white to tan in color.	Odor:	Odorless.
Solubility:	Insoluble in water.	pH:	No information found.
% Volatiles by volume @ 21C (70F):	0	Boiling Point:	Not applicable.
Melting Point:	2876 degrees Fahrenheit	Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	No information found.	Evaporation Rate (BuAc=1):	No information found.

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10. Stability and Reactivity

Stability:	Stable under ordinary conditions of use and storage.
Decomposition Products:	Amorphous silica may transform at elevated temperatures to tridymite (870 C) or cristobalite (1470 C).
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None anticipated.
Incompatibility (Materials to Avoid):	Not Applicable

11. Toxicological Information

Principle Route of Exposure: Eye or skin contact, inhalation.

Inhalation: Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1). There is sufficient evidence in experimental animals for the carcinogenicity of tridymite (IARC, Group 2A). Breathing silica dust may cause irritation of the nose, throat, and respiratory passages.

Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also have serious chronic health effects (See "Chronic Effects/Carcinogenicity" subsection below).

Skin Contact: None known.

Eye Contact: May cause mild eye irritation.

Ingestion: May produce nervous system effects such as feeling of weakness, unsteady walk, and dilation of blood vessels. May affect heart and cardiovascular system.

Aggravated Medical Conditions: Individuals with respiratory disease, including but not limited to asthma and bronchitis, or subject to eye irritation, should not be exposed to quartz dust.

Chronic Effects / Carcinogenicity: Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

Cancer Status: The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 - carcinogenic to humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A - possible carcinogen to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology Program classifies respirable crystalline silica as "Known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2). There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by scarring of the lungs, skin, and other internal organs) and kidney disease.

Other Information: For further information consult "Adverse Effects of Crystalline Silica Exposure" published by the American Thoracic Society Medical Section of the American Lung Association, American Journal of Respiratory and Critical Care Medicine, Volume 155, pages 761-768 (1997).

Toxicity Tests

Oral Toxicity:	Not determined	Dermal Toxicity:	Not determined
Inhalation Toxicity:	Not determined	Primary Irritation Effect:	Not determined
Reproductive / Developmental Toxicity:	Not determined	Genotoxicity:	Not determined
Carcinogenicity:	Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997).		

12. Ecological Information

Mobility (Water/Soil/Air): Not determined **Persistence/Degradability:** Not applicable **Bio-accumulation:** Not Determined

Ecotoxicological Information

Acute Fish Toxicity: TLM96: 7500 ppm (Oncorhynchus mykiss) **Acute Crustaceans Toxicity:** Not determined
Acute Algae Toxicity: Not determined **Chemical Fate Information:** Not determined

13. Disposal Considerations

Disposal Method: Bury in a licensed landfill according to federal, state, and local regulations.
Contaminated Packaging: Follow all applicable national or local regulations.

14. Transport Information

Land Transportation: DOT: Not restricted **Canadian TDG:** Not restricted **ADR:** Not restricted
Air Transportation: ICAO/IATA: Not restricted
Sea Transportation: IMDG: Not restricted
Other Shipping Information: Labels: None

15. Regulatory information

US Regulations

US TSCA Inventory: All components listed on inventory.
EPA SARA Title III Extremely Hazardous Substances: Not applicable
EPA SARA (311,312) Hazard Class: Acute Health Hazard and Chronic Health Hazard
EPA SARA (313) Chemicals: This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).
EPA CERCLA/Superfund Reportable Spill Quantity For This Product: Not applicable.
EPA RCRA Hazardous Waste: If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
California Proposition 65: The California Proposition 65 regulations apply to this product.

MA Right-to-Know Law: One or more components listed. **PA Right-to-Know Law:** One or more components listed.
NJ Right-to-Know Law: One or more components listed. **WHMIS Hazard Class:** D2A Very Toxic Materials (Crystalline silica)
Canadian Regulations Canadian DSL Inventory: All components listed on inventory.