



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION:

Trade Names: BariScan Elite, BariScan Ultra, Miti-Wite B1, Miti-Wite B3, Miti-Wite B10.
Material Uses: Contrast Agent, Weighting Material, and Filler
Description: Barium Sulfate (BaSO₄)
Manufacturer: CIMBAR Performance Minerals \ 25 Old River Rd. \ Cartersville, GA. 30120
In case of emergency: Quality Assurance (770) 387-0319 or (800) 852-6868

2. COMPOSITION/INFORMATION ON THE COMPONENTS:

<u>Country</u>	<u>CAS number</u>	<u>%</u>	<u>Exposure Limits (1)</u>
United States	7727-43-7	97 min.	OSHA PEL: 10 PPM

ACG1H: 10mg/M3 total dust

(1) Nuisance Dust

SARA Title III: Section 313 Supplier Notification

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of CFR 372.

3. HAZARD IDENTIFICATION:

Physical State: White Powder, odorless.

Hazard Status: This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico.

Routes of Entry: Dermal, eye, inhalation, ingestion.

Carcinogenic Status: None.

Target Organs: Eye, lungs.

Health Effect-Eyes: Direct contact with dust may cause mechanical irritation of the eyes.

Health Effects-Skin: Direct contact may cause slight dryness, or may cause mild irritation.

Health Effects-Ingestion: Barite is considered to be relatively non-toxic due to non-absorption.

Health Effects-Inhalation: Inhalation of fine barite dust may cause irritation of the nose and throat by mechanical action.

Other Health Warnings: Repeated or prolonged exposure to the substance could produce target organs damage.

4. FIRST AID MEASURES:

First Aid-Eyes: Wash eyes with large amounts of water or normal saline solution. If irritation or redness develops, seek medical attention.

First Aid-Skin: Apply common skin moisturizers to relieve dryness. Irritations are uncommon; however, if irritation or redness develops, seek medical attention. Broken skin can be cleansed with mild soap and water.

First Aid-Ingestion: Barite is considered to be relatively non-toxic due to non-absorption.

First Aid-Inhalation: Remove from exposure to fresh air. If breathing has stopped, perform artificial respiration and get medical attention immediately. Keep person warm and at rest. Treat symptomatically and supportively.

Emergency Eye Wash: When there is a possibility that an employee's eyes may be exposed to bulk quantities or high concentrations of airborne dust of this substance, the employer should provide an eye wash fountain within the immediate work area for emergency.

5. FIRE FIGHTING MEASURES:

Extinguishing Media: Not readily combustible. Select extinguishing agent appropriate to other materials involved.

Special Hazards of Product: Avoid the formation of dust clouds

Protective Equipment for Fire-fighting: No specific measures necessary

6. ACCIDENTAL RELEASE MEASURES:

Spill Procedures: No specific measures necessary

7. HANDLING & STORAGE:

Handling: Wash thoroughly after handling.

Storage: Store in original containers. Storage area should be away from incompatible materials and in cool, dry, well-ventilated and protected areas

8. SPECIAL PROTECTION INFORMATION:

United States Exposure Limits
ACGIH TLV (United States, 01/2005)
TWA: 10mg/m³ (8 hours). Form: All forms.
NIOSH REL (United States, 12/2001)
TWA: 5mg/m³ (10 hours). Form: Respirable fraction.
TWA: 10mg/m³ (10 hours). Form: Total
OSHA PEL (United States, 08/1997)
TWA: 0, 5mg/m³ (8 hours). Form: All forms.
TWA: 5mg/m³ (8 hours). Form: Respirable fraction
TWA: 15mg/m³ (8 hours). Form: Total dust.

Canada ACGIH TLV (United States, 01/2005)
TWA: 10mg/m³ (8 hours). Form: All forms.

Mexico NOM-010-STPS (Mexico, 09/2000)
CPT: 0.5mg/m (8 hours). Form: All forms.

Occupational Exposure Standards: OSHA TWA(respirable dust) - 5mg/m³; ACGIH, OSHA TWA(total dust) - 10mg/m³

Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. If they are not effective, then suitable personal protective should be used.

Respiratory Protection: The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Hand Protection: Protective gloves are not required, but may be worn to prevent skin dryness or irritation.

Eye Protection: Dust tight goggles

Body Protection: Normal work wear

Emergency Eye Wash: When there is a possibility that an employee's eyes may be exposed to bulk quantities or high concentrations of airborne dust of this substance, the employer should provide an eye wash fountain within the immediate work area for emergency.

9. PHYSICAL & CHEMICAL PROPERTIES:

Physical State: White, Odorless, Powder.
Melting/freezing point: 1580 deg. C (2876 deg F)
Solubility in water: Insoluble in Water
Relative density: 4.2 to 4.5 (Water=1)
MOHS Hardness: 2.5-3.5

10. STABILITY & REACTIVITY:

Stability: Product is stable.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION:

Acute Toxicity: Tumorigenic data (RTECS), Mutagenic data(RTECS)
Chronic Toxicity/Carcinogenicity: Inhaled fine dusts of barium sulfate form harmless nodular granules in the lung (baritosis). Baritosis produces no symptoms of bronchitis or emphysema. Lung functioning is not affected, although some patients complain of dyspnea upon exertion.
Genotoxicity: None
Reproductive/Developmental Toxicity: None

12. ECOLOGICAL INFORMATION:

Mobility: The product is insoluble in water
Persistence/Degradability: No relevant studies identified
Bioaccumulation: No relevant studies identified
Ecotoxicity data: Species (Daphnia magna, EC50), Period (48 hrs), Result (32 mg/l)

13. DISPOSAL:

Product Disposal: Dispose of in accordance with all applicable local, state, and federal regulations.
Container Disposal: Dispose of containers with care

14. TRANSPORT INFORMATION:

NAERG: Not applicable.
Regulatory information: Not regulated by UN, IMDG/IATA, DOT/TDG

15. REGULATORY INFORMATION:

United States
HCS Classification: Target organ effects.
US Federal regulations:
TSCA 8(b) inventory: All components listed.
SARA 302/304/311/312 extremely hazardous substances: no products found.
SARA 302/304 emergency planning and notification: no products found.
SARA 302/304/311/312 hazardous chemicals: Barium sulfate.
SARA 311/312/ MSDS distribution: chemical inventory- hazard identification: Barium sulfate:
immediate (acute) health hazard.
Clean Water Act (CWA) 307: No products found.
Clean Water Act (CWA) 311: No products found.
Clean Air Act (CAA) 112 accidental release prevention: no products found.

Clean Air Act (CAA) 112 regulated flammable substances: no products found.
Clean Air Act (CAA) 112 regulated toxic substances: no products found.
Pennsylvania RTK: Barium Sulfate: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Barium sulfate
New Jersey: Barium Sulfate

Food and Drug Administration (CFR 175.300b): Food and Drug (FDA Jurisdiction): Barium Sulfate is listed as a safe pigment for use in resinous and polymeric coatings in contact with food.

State regulations: California prop. 65: No products were found.

Canada: Not controlled under WHMIS.

This MSDS contains all the information required by the Canadian CPR, the United States OSHA, and the American National Standard Institute (ANSI) Z400.1 and Mexican NOM-018-STPS-2000.

Mexico Classification: Health (1), Flammability (0), Reactivity (0)
Hazard Ratings: 4 (extreme), 3 (serious), 2 (moderate), 1 (slight), 0 (minimal)

International lists:

This product and its ingredients are listed on national inventories, or is exempted from being listed, Australia (AICS), in Europe (EINECS/ELINC), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969)

16. OTHER INFORMATION\CONTACT:

Hazardous Material Information System (HMIS) USA:

Health Hazard-1(slight), Flammability Hazard-0 minimal, Reactivity Hazard-0 minimal, Personal Protection-E: glasses, gloves, and dust respirator

National Fire Protection Association (USA):

Health (1), Fire Hazard (1), Physical Hazard (0), Personal Protection (E)

The information contained herein is based on data available to CIMBAR Performance Minerals and is believed to be correct. However, CIMBAR Performance Minerals makes no warranty, expressed or implied, regarding the accuracy or completeness of this information or the results to be obtained from the use thereof.

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APPROVAL

<i>NAME</i>	<i>SIGNATURE</i>	<i>POSITION</i>	<i>DATE</i>
Shane Bryant		Vice President, Cimbar Pharmaceutical	
Jason Bryant		Senior Quality Engineer, Cimbar Pharmaceutical	
Marcy Baugh		Director of Business Development, Cimbar Performance Minerals	
Blane Sexton		Manager of Quality Programs, Cimbar Performance Minerals	
Al Wilson		President, Cimbar Performance Minerals	

Revision History:
NONE (first release)