

MATERIAL SAFETY DATA SHEET

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SECTION I NAME

PRODUCT: BARIUM IMPREGNATED POLYETHYLENE SPHERES, "B.I.P.S."

1. Product Identification

Synonyms:

For Barium sulfate: Sulfuric acid, barium salt; barytes;
blanc fixe; barite

CAS No. For Barium sulfate: 7727-43-7

Molecular Weight for Barium Sulfate: 233.39

Chemical Formula for Barium Sulfate: BaSO₄

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Barium Sulfate	7727-43-7	2 - 25%	Yes
Polyethylene	9002-88-4	70 - 100%	No

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to any chemical substance. B.I.P.S. contains barium sulfate in a polyethylene matrix which essentially prevents any contact with barium sulfate constituents. In the event that a B.I.P.S. products should be damaged or abraded however, there is the potential for a slight release of barium

sulfate and therefore appropriate care and caution should be taken.

Potential Health Effects - Barium Sulfate only

Inhalation:

Not expected to be a health hazard.

Ingestion:

Not expected to be a health hazard.

Skin Contact:

No adverse effects expected.

Eye Contact:

No adverse effects expected but dust may cause mechanical irritation.

Chronic Exposure:

Long term inhalation of dust may lead to deposition in lungs in sufficient quantities to produce baritosis - a benign pneumoconiosis. This produces a radiological picture even though symptoms and abnormal signs may not be present.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures - Barium Sulfate only

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

Skin Contact:

Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full

facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures - Barium Sulfate only

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities

8. Exposure Controls/Personal Protection

Airborne Exposure Limits for Barium Sulfate:

-OSHA Permissible Exposure Limit (PEL):
15 mg/m³ total dust, 5 mg/m³ respirable dust
-ACGIH Threshold Limit Value (TLV):
10 mg/m³ total dust containing no asbestos and

Ventilation System for Barium Sulfate only:

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

None required

Eye Protection:

None Required

9. Physical and Chemical Properties**Appearance:**

White spheroid plastic product.

Odor:

Odorless.

Solubility:

Insoluble in water.

Specific Gravity:

Barium sulfate is 4.5 @ 15 (59F)

pH:

B.I.P.S. is insoluble.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

For Barium sulfate: 1600C (2912F) Decomposes.

Melting Point:

For Barium sulfate: 1580C (2876F)

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity**Stability:**

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Burning may produce sulfur oxides.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Aluminum, phosphorus.

Conditions to Avoid:

Dusting and incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

Ingredient	---NTP Carcinogen---		
	Known	Anticipated	IARC Category
Barium Sulfate (7727-43-7)	No	No	None

12. Ecological Information

Environmental Fate:

This material may bioaccumulate to some extent.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. B.I.P.S. is not a listed RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Barium Sulfate (7727-43-7)	Yes	Yes	Yes	Yes

Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	DSL	--Canada--	
			NDSL	Phil.
Barium Sulfate (7727-43-7)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-	-----SARA 313-----		Chemical Catg.
	RQ	TPQ	List	
Barium Sulfate (7727-43-7)	No	No	No	No

Federal, State & International Regulations - Part 2\-----
 -RCRA- -TSCA-
 Ingredient CERCLA 261.33 8 (d)

 Barium Sulfate (7727-43-7) No No No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
 Reactivity: No (Pure / Solid)

Australian Hazchem Code: No information found.

Poison Schedule: No information found.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 0 Flammability: 0 Reactivity: 0

Label Hazard Warning:

None.

Label Precautions:

None.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent.

Revision Information:

No changes.

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