


1 PRODUCT & COMPANY IDENTIFICATION

Product Name:	Barium Sulphide	Supplier:	ASES CHEMICAL WORKS.
Synonym Name:	Barium Polysulfide, Polybarit, Neopol	Address:	Brahm Bagh, Jalori Gate Jodhpur - 342001 Rajasthan-India
INCI Name:	Barium Sulphide	Phone:	+91-9636889954
CAS Number:	21109-95-5	Web:	www.ases.in
Product Form:	Powder	Email :	ecom@ases.in
Product Use:	Surfactant for domestic, commercial and industrial use		

2 HAZARDS IDENTIFICATION

GHS Label elements, including precautionary statements

Label In Accordance With (EC) No. 1272/2008

Pictogram : 

Health Hazards

Health Rating :	Slight
Flammability Rating :	Slight
Reactivity Rating :	Slight
Contact Rating :	Slight
Storage :	General

3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	EC Numbers	Formula	Molecular weight	Concentration
Water	21109-95-5	244-214-4	BaS	169.39 g/mol	99.9%

Hazards : Met. Corr. 1; Acute Tox. 3; Acute Tox. 4; Skin Corr. 1A; Aquatic Acute 1; H290, H301, H332, H314, H400
M-Factor - Aquatic Acute: 10

4 FIRST AID MEASURES

Inhalation:	If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing ,apply artificial respiration. If breathing is difficult, give oxygen.
Eye Contact:	Flush eyes with large amounts of water for at least 15 minutes and get IMMEDIATE medical attention.
Skin Contact:	Wash with soap and water. Wash clothing before reuse.
Ingestion:	If swallowed, do not induce vomiting unless directed to do so by medical personnel.

5 FIRE-FIGHTING MEASURES

Flash Point :	Non-Flammable under normal conditions.
Flammability :	Finely divided dust can form combustible mixtures with air.
General Hazard:	Poison, flammable hydrogen sulfide gas will be evolved from this product on exposure to acid if this product is involved in a fire, toxic sulfur oxide gases may be produced.
Fire Fighting Instructions:	Limit water runoff if it is likely to contain suspended barium sulfide. Add soluble sulfate such as sodium sulfate to the water to remove dissolved barium. Do not use carbon dioxide fire extinguishers because toxic hydrogen sulfide gas may be liberated from this product.
Fire Fighting Equipment:	No special equipment is required. Wash away any barium sulfide which may contact the body, clothing, or equipment.
Hazardous Combustion:	Poisonous sulfur dioxide gas will be generated if this product burns.
Personnel :	Fire-fighters should wear full protective clothing, including self-contained breathing equipment.
Hazardous combustion :	None

MATERIAL SAFETY DATA SHEET

BARIUM SULPHIDE

6 ACCIDENTAL RELEASE MEASURES

- General:** Avoid generating dust and keep this product away from acids. Use appropriate Personnel Protective Equipment (PPE). Spilled product is a RCRA hazardous waste because of its soluble barium content and sulfide content.
- Small Spill:** Carefully shovel or sweep up spilled material and place in suitable container.
- Large Spill:** Try to keep material dry and away from acids. Prevent material from entering storm sewers or ditches which lead to natural waterways. Dispose of material in an approved hazardous waste landfill. Mix with excess sulfate to make material non-hazardous

7 HANDLING & STORAGE

- Handling:** Use full protective gear. Protect containers against physical damage /direct sunlight / water.
- Storage:** This product is water-soluble; keep this material dry. Keep containers closed. Emptied containers may present a toxic hazard; treat or dispose of appropriately. Do not store in zinc, aluminium, or copper containers. Do not rely upon the sense of smell to detect hydrogen sulfide gas (the ability to smell is rapidly lost).

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering Controls:** Control airborne concentrations below the exposure limits. Use only with adequate ventilation.
- Respiratory Protection:** Use a NIOSH-approved dust mask if excessive dust is present.
- Skin Protection:** Cover exposed skin areas and wear general-purpose gloves.
- Eye Protection:** Wear safety glasses. Use chemical goggles if excessive dust is present.

9 PHYSICAL AND CHEMICAL PROPERTIES

Form	Crystalline, Powder	Flash point	About 1200 Deg. C
Odour	Sulfurous	Specific gravity (20°C)	4.2
Colour	Light Gray powder or dark Gray coarse powder containing granules	Evaporation Rate	Not applicable.
pH	Highly alkaline.	Vapour Density	Not applicable.
Boiling point	No data available	Solubility	Soluble in water

10 STABILITY AND REACTIVITY

- Chemical Stability :** Keep away from acids which will cause decomposition. Intense heat may cause decomposition.
- Incompatibility :** Slight reaction with oxidising substances
- Hazardous Decomposition :** None
- Hazardous Polymerization:** Does not occur.

11 TOXICOLOGICAL INFORMATION

Acute toxicity LD50 Oral - Rat - male and female - 271 mg/kg (OECD Test Guideline 401)

Inhalation: No data available Dermal: No data available

Skin corrosion/irritation

Skin - in vitro assay Result: Causes severe burns. - 3 - 60 min (Skin corrosion: Human Skin Model Test)

Serious eye damage/eye irritation - No data available

Respiratory or skin sensitisation - No data available

Germ cell mutagenicity - No data available

Carcinogenicity - Rats and mice exposed to 2500 ppm of barium chloride dihydrate in drinking water for two years showed no evidence of carcinogenic response.
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 identified as a carcinogen or potential carcinogen by OSHA.

MATERIAL SAFETY DATA SHEET

BARIUM SULPHIDE

Reproductive toxicity -	Rats exposed to 2000 ppm of barium chloride dihydrate in their drinking water for thirty days exhibited no teratogenic effects, and no fetotoxicity was noted. No effects were seen on reproductive indices in a mating trial after male rats were exposed to 2000 ppm of barium chloride dihydrate in their drinking water for sixty days and female rats were exposed to 2000 ppm in their drinking water for 30 days.
Sub-chronic:	Rats and mice exposed to 1,250 ppm of barium chloride dihydrate in their drinking water continuously for two years showed no adverse effects.
Mutagenic:	Barium chloride dihydrate was not mutagenic in Salmonella typhimerium strains TA 100, TA 1535, TA 1537, TA 97, or TA 98, with or without exogenous metabolic activation (S9).

12 ECOLOGICAL INFORMATION

Very toxic to aquatic life.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

This product reacts with sulfate ions in the environment to form barium sulfate. Sulfide is part of the naturally-occurring sulfur cycle and is present throughout the lithosphere. No appreciable bioconcentration is expected in the environment, because barium sulfate is naturally present in almost all rocks and soils.

CHEMICAL FATE: The environmental fate of barium sulfide is to become barium sulfate which is insoluble in both water and acids and thus is inert and non-toxic.

13 DISPOSAL CONSIDERATIONS

Waste containing more than 0.2% soluble barium is hazardous under the RCRA criteria. If disposed of in its purchased form, this product would be a characteristic D005 hazardous waste based on barium solubility in the RCRA TCLP test. It would also be a hazardous waste based on its sulfide content. Barium compounds can be rendered non-hazardous by reaction with excess sulfate to form insoluble barium sulfate; any strong oxidizing agent will oxidize sulfide. Any disposal practice must be in compliance with local, state, and federal laws and regulations.

14 TRANSPORT INFORMATION

Transport	Transport	Hazard class	Packing group	UN number
Land	RID/ADR	Not Regulated	Not Regulated	Not Regulated
Maritime	IMDG			
Air	IATA/DGR			

15 REGULATORY INFORMATION

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200. It is classified as toxic based on the oral rat LD50.

TSCA Status: Listed on TSCA Inventory

CERCLA Reportable Quantity: None.

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components Barium sulfide CAS No. 21109-95-5 Revision Date 2007-07-01

New Jersey Right To Know Components Barium sulfide CAS No. 21109-95-5 Revision Date 2007-07-01

California Prop. 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16 OTHER INFORMATION

Disclaimer & Caution

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 ASES CHEMICAL WORKS assume no liability resulting from its use.