

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: BARIUM IODIDE 99% AR

CAS#: 13718-50-8

C.I. No.: Not available.

Synonym:

Chemical Name : Not available.

Chemical Formula: BaI<sub>2</sub>.xH<sub>2</sub>O

Molecular Weight: 391.14

## Composition and Information on Ingredients

Name	S.K.U	% by Weight	Hazardous
Barium Iodide	GCS-2847	98-100	Yes

## Hazards Identification

Emergency Overview: Appearance: White to off-white powder. Warning! Harmful if swallowed, inhaled, or absorbed through the skin. May cause eye, skin, and respiratory tract irritation. May cause allergic respiratory and skin reaction. Air sensitive. Light sensitive. Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated.

Target Organs: Respiratory system, muscles, skin.

Potential Chronic Health Effects:

Eye: May cause eye irritation.

Skin: May cause skin irritation. Harmful if absorbed through the skin. May cause an allergic reaction in certain individuals.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. The barium ion is a muscle poison causing stimulation and then paralysis. Initial symptoms are gastrointestinal, including nausea, vomiting, colic, and diarrhea, followed by myocardial and general muscular stimulation with tingling in the extremities. Barium deposition may result in increased density of bones.

Inhalation: Harmful if inhaled. May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause an allergic

response.

Chronic: Not Available

## First Aid Measures

Description of first aid measures:

Inhalation

Assure fresh air breathing. Allow the victim to rest. Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin contact

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact

Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

Ingestion :

Rinse mouth. Do NOT induce vomiting. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Swallowing a small quantity of this material will result in serious health hazard. Danger of serious damage to health by prolonged exposure through inhalation.

Indication of any immediate medical attention and special treatment needed

General information: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

## Fire and Explosion Data

Flammability of the Product: Non-flammable

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not Available

Special Remarks on Fire Hazards: Not Available

Special Remarks on Explosion Hazard : Not Available

### **Accidental Release 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 0

### **Handling and Storage**

Handling Precautions : 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. Keep container tightly closed. Avoid ingestion and inhalation.

Storage Precautions : Store in a cool, dry place. Store in a tightly closed container.

### **Exposure Controls/Personal Protection**

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits :

Chemical Name	ACGIH	NIOSH	OSHA-FinalPELs
Bariumiodide hydrate	0.5 mg/m <sup>3</sup> TWA(listed under Barium).	None Listed	0.5 mg/m <sup>3</sup> TWA(listed under Barium).

**OSHA/Vacated PELs:**

Barium iodide hydrate: No OSHA/Vacated PELs are listed for this chemical.

**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 appropriate protective gloves to prevent skin exposure.

**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.

**Physical and Chemical Properties**

Physical state and appearance	: White to off-white Powder.
Odor	: Not available.
pH	: Not available.
Vapour Pressure	: Not available.
Vapour Density	: Not available.
Evaporation Rate	: Not available.
Viscosity	: Not Available.
Boiling Point	: Not Available.
Freezing/Melting Point	: 740°C
Decomposition Temperature	: Not Available.
Solubility	: Soluble
Specific Gravity/Density	: 5.1500g/cm <sup>3</sup>
Molecular Formula	: BaI <sub>2</sub> .xH <sub>2</sub> O
Molecular Weight	: 391.14

**Stability and Reactivity Data**

Chemical; Stability: Air sensitive. Sensitive to light. Hygroscopic: absorbs moisture or water from the air. Exposure to light can cause decomposition forming iodine particularly in acid conditions. Deliquescent- dissolves and become liquid by absorbing moisture from the air.

Conditions to Avoid: Light, dust generation, exposure to air, exposure to moist air or water.

Incompatibilities with OtherMaterials: Strong oxidizing agents.

Hazardous Decomposition Products: Hydrogen iodide, iodine.

Hazardous Polymerization: Has not been reported.

### **Toxicological Information**

RTECS#:

CAS#13718-50-8 unlisted.

LD50/LC50: Not Available

Carcinogenicity:

CAS# 13718-50-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: Not Available

Teratogenicity: Not available.

Reproductive Effects: Not available

Mutagenicity: Not available

Neurotoxicity: Not available

### **Ecological Information**

Toxicity: Not available.

Distribution: Not available.

Chemical Fate: Not available.

### **Disposal Considerations**

Waste Disposal: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. USEPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

## Transformation Information

### 1. Land transport (ADR-RID)

Proper shipping name : BARIUMCOMPOUNDS NOS.  
(BARIUM IODIDE)  
UN N° 1564  
ADR - Class : 6.1  
ADR - Group III

### 2. Sea transport (IMDG) [English only]

Proper shipping name : BARIUMCOMPOUNDS NOS.  
(BARIUM IODIDE)  
UN N° 1564  
IMO-IMDG - Class or division : 6.1  
IMO-IMDG - Packing group III

### 3. Air transport (ICAO-IATA) [English only]

Proper shipping name : BARIUMCOMPOUNDS NOS.  
(BARIUM IODIDE)  
UN N° 1564  
IATA - Class or division : 6.1  
IATA - Packing group III

## Other Regulatory Information

US FEDERAL  
TSCA  
CAS# 13718-50-8 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs : None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

Section 313: This material contains Barium iodide hydrate (listed as Barium), 96.0%, (CAS# 13718-50-8) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE: CAS# 13718-50-8 can be found on the following state right to know lists: New Jersey, (listed as Barium), Pennsylvania, (listed as Barium), Pennsylvania, (listed as Barium compounds, n.o.s.), Massachusetts, (listed as Barium).

European/International Regulations :

European Labeling in Accordance with EC Directives:

Hazard Symbols: XN

Risk Phrases: R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R 42/43 May cause sensitization by inhalation and skin contact. R 68 Possible risk of irreversible effects.

Safety Phrases: S 22 Do not breathe dust. S 24 Avoid contact with skin. S 36/37 Wear suitable protective clothing and gloves. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection): CAS# 13718-50-8: No information available.

Canada - DSL/NDSL: CAS# 13718-50-8 is listed on Canada's NDSL List.

### **Additional Information**

References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

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The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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