Product Safety Summary

Barium Sulfate (Blanc Fixe)

CAS No. 7727-43-7

This Product Safety Summary is intended to provide a general overview of the chemical substance. The information on the summary is basic information and is not intended to provide emergency response information, medical information or treatment information. The summary should not be used to provide in-depth safety and health information. In-depth safety and health information can be found in the Safety Data Sheet (SDS) for the chemical substance.

Names

- Barium sulfate (sulphate)
- Blanc Fixe

Product Overview

Solvay Fluorides, LLC does not sell barium sulfate directly to consumers. The barium sulfate sold by Solvay Fluorides, LLC is used in industrial applications and processes.

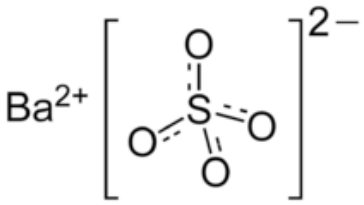
Barium sulfate is used primarily as a whitening agent or as a support for other chemicals in industrial applications. Barium sulfate is sold as an odorless white solid.

Barium sulfate is a relatively non-hazardous chemical. Any hazards are due primarily to the physical form (particles). Repeated or prolonged contact can irritate the skin and eyes. Breathing barium sulfate particles can irritate the nose and throat and restrict breathing (shortness of breath). Ingestion of large amounts of barium sulfate typically does not cause any problems.

Manufacture of Product

- Solvay Fluorides, LLC imports the barium sulfate it sells from a Solvay affiliate in Europe.

- Solvay manufactures barium sulfate from barium containing ore. Barium is extracted from the ore as barium sulfide. The barium sulfide is reacted with sodium sulfate to form barium sulfate. The barium sulfate is further dried and purified to form the final product.



$BaSO_4$

Barium Sulfate

$$BaS + Na_2SO_4 \rightarrow BaSO_4 + Na_2S$$

Product Description

Barium sulfate is manufactured and sold in solid form. The solid is a white or slightly colored odorless powder. Typical physical properties for barium sulfate are provided in Table 1.

Table 1: Typical physical properties Barium sulfate

Melting point temperature	2462ºF (1350ºC)
Bulk Density @ 68ºF (20ºC)	600-1000 kg/m^3 37.5 – 64.5 lbs./ft^3
Relative Density @ 59ºF (15ºC)	4.5
Solubility in Water @ 64ºF (18ºC)	2.3 mg/l
pH @ 68ºF (20ºC) (Saturated Aqueous Solution)	9

Product Uses

Barium sulfate is used as a whitening agent or as an insoluble support in industrial applications.

Exposure Potential

- **Workplace Exposure** - Exposure can occur at either a barium sulfate manufacturing facility, or a manufacturing, packaging or storage facility that handles barium sulfate. Exposure may also occur in the event of a transportation incident. Persons involved in maintenance, sampling and testing activities, or in the loading and unloading of barium sulfate packages are at greater risk of exposure. Following good industrial hygiene practices will minimize the likelihood of exposure; however, persons involved in higher risk activities should always wear proper personal protective equipment such as gloves and boots, respiratory protection, goggles and a hard hat.

  Please consult the Safety Data Sheet for occupational exposure limits.

- **Consumer Exposure to Products Containing Barium Sulfate -** Solvay Fluorides, LLC does not sell barium sulfate directly to consumers. Users should follow the manufacturer's use and/or label instructions if barium sulfate is listed as a component.

- **Environmental releases** - Spills of barium sulfate should be contained and isolated from waterways, sewers and drains. Small spills of barium sulfate should be swept or shoveled up and placed in suitable containers for disposal. Disposal should be in accordance with applicable local, state and federal regulations. Persons attempting to clean up barium sulfate spills should wear proper personal protective equipment (see guidelines in Workplace Exposure section of this document or Safety Data Sheet). If required, report spills to the appropriate state or federal authorities.

- **Fires** - Fires involving barium sulfate should be extinguished using measures appropriate to the circumstances and surrounding environment. Hazardous decomposition products such as sulfur and barium oxides may be generated. Fire fighters should wear self-contained breathing apparatus and protective suits

For additional information concerning cryolite emergency response procedures, please consult the Safety Data Sheet.

Health Information

Exposures to barium sulfate (industrial) can produce the following adverse health affects:

- **Contact** - Skin exposures can cause skin irritation and/or dermatitis. Eye exposure to barium sulfate may result in eye irritation.
- **Inhalation** - The inhalation of barium sulfate can cause shortness of breath (pulmonary overload).
- **Ingestion** - There have been no reported symptoms from the ingestion of barium sulfate.
- **Other Effects** - The International Agency for Research on Cancer (IARC) has not determined barium sulfate to be carcinogenic (cancer causing). Please consult the Safety Data Sheet for additional information.

For more information on health effects and routes of exposure, or for information concerning proper first aid measures, please consult the Safety Data Sheet.

Environmental Information

Although barium sulfate is biologically inert, repeated exposure to barium sulfate may cause barium to accumulate in the body. For more ecological and environmental information concerning this product, please consult the Safety Data Sheet.

Physical Hazard Information

Barium sulfate is not combustible.

Decomposition due to fire may result in the liberation of barium oxides, sulfur oxides and other hazardous materials.

For more information concerning the physical hazards of this product, please consult the Safety Data Sheet.

Regulatory Information

Regulations may exist that govern the manufacture, sale, export, import, storage, transportation, use and/or disposal of this chemical. These regulations can vary by city, state, country or geographic region. Information may be found by consulting the relevant Safety Data Sheet specific to your country or region.

Additional Information

- Solvay America, Inc. www.solvaynorthamerica.com
- Solvay Fluorides, LLC www.solvaychemicals.us
- Solvay Fluorides, LLC Safety Data Sheets
  www.solvaychemicals.us/EN/Literature/LiteratureDocuments.aspx
- Contact Solvay Fluorides, LLC solvaychemicals.us@solvay.com
- This summary was prepared in September, 2011
  This summary was revised in September, 2013

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