



SOLVAY PERFORMANCE CHEMICALS

Material Safety Data Sheet

DISTRIBUTED BY
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OSHA Edition

The following information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment.
(Unless noted to the contrary, the technical information applies only to pure product).

1. IDENTIFICATION

1.1 Product Name: Barium carbonate
1.2 Chemical Name: Barium carbonate
1.3 Synonyms:
1.4 Trade Names:
1.5 Formula: $BaCO_3$
1.6 Molecular Weight: 197.35
1.7 CAS No.: 513-77-9
1.8 EINECS No.:

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name: Barium carbonate
CAS: 513-77-9
ACGIH TLV: 0.5 mg/m^3 for soluble Barium compounds as Barium (0.74 mg/m^3
(1992-1993) as $BaCO_3$)
OSHA Pel (1992):

3. HAZARD IDENTIFICATION

3.1 Route of Exposure: Ingestion, Inhalation, Skin or Eye
3.2 Skin: Barium is not likely to penetrate intact skin; penetration through cuts may cause symptoms of over-exposure. A slight irritation may result from the alkaline nature of the product.
3.3 Eye: Particles in the eye may cause pain, tearing and irritation.

4. FIRST AID MEASURES

1

- 4.1 **Inhalation:** Flush mouth and nasal passages with water. Have victim drink solution of 1 Tablespoon of Epsom Salt (Magnesium Sulfate) or Glauber's Sulfate (Sodium Sulfate) dissolved in water. Call for medical attention.
- 4.2 **Eyes:** Flush eyes with water until irritation subsides. Get medical attention if necessary.
- 4.3 **Skin:** Wash with water and soap is available. Remove contaminated clothing and wash before re-use.
- 4.4 **Ingestion:** Have victim drink solution of 1 Tablespoon of Epsom Salt (Magnesium Sulfate) or Glauber's Sulfate (Sodium Sulfate) dissolved in water. Induce vomiting if victim is completely conscious. Call for medical attention.

4.5 **Regulatory/
Carcinogenicity:** Barium carbonate is not considered carcinogenic (1993 study of Barium chloride showed no evidence)

4.6 **Medical Conditions Aggravated by Exposure:** Acute over-exposure will cause severe abdominal pain, violent purging with watery bloody stools, vomiting, muscle twitching and confusion, followed by muscle paralysis of the respiratory muscles, which may be fatal.

5. FIRE FIGHTING MEASURES

5.1 **Common extinguishing methods:** foam or water

5.2 **Inappropriate extinguishing methods:**

5.3 **Specific hazards:** Will decompose releasing Carbon dioxide gas at extremely high temperatures.

5.4 **Protective measures in case of intervention:**

5.5 **Other precautions:** Limit water runoff if it is likely to contain suspended product.

6. ACCIDENTAL RELEASE MEASURES

Try to keep material dry. Prevent runoff from entering sewers or ditches connected with natural waterways. Dispose of appropriately in compliance with local, state and federal laws and regulations.

7. HANDLING AND STORAGE

General storage conditions are not critical. Keep material dry. Store separate from acids.

Emptied containers may present a toxic hazard. Treat or dispose of empty containers in compliance with local, state and federal laws and regulations

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Engineering controls: Control airborne concentrations below the exposure limit. Use only with adequate ventilation.
- 8.2 Respiratory protection: Use NIOSH approved dusk mask.
- 8.3 Hand protection: Wear impervious gloves.
- 8.4 Eye protection: Wear safety glasses. Use chemical goggles if excessive dust is present.
- 8.5 Skin protection: Cover exposed skin areas.
- 8.6 Other precautions:

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Appearance: solid, white powder or granules
- 9.2 Odor: usually odorless
- 9.3 pH: 9 (measured in a 1% suspension in water)
- 9.4 Boiling point/range: N/A
- 9.5 Melting point/range: 1400°C (2552°F) - near decomposition temperature
- 9.6 Flash point: N/A
- 9.7 Flammability: N/A
Lower limit:
Upper limit:
- 9.8 Autoignition temperature: N/A
- 9.9 Danger of explosion: N/A
- 9.10 Combustible characteristics:
- 9.11 Vapor pressure: N/A
- 9.12 Vapor density (air=1): 4.3

9.13 Specific gravity (H₂O = 1):

9.14 Solubility:

Water solubility: 0.02g/l	(Barium Chloride	BaCl ₂ 375 g/l
	Barium Sulfate	BaSO ₄ 0.002 g/l)

9.15 Viscosity: N/A

9.16 Decomposition temperature: See 9.5

9.17 Partition coefficient p (n-octanol/water): N/A

9.18 Other data: N/A

10. STABILITY AND REACTIVITY

10.1 Stability: stable under normal conditions

10.2 Conditions to avoid: heat

10.3 Materials to avoid: acids

10.4 Hazardous decomposition products: Carbon dioxide; soluble Barium salts

10.5 Other information:

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity: LD50-oral: (rat) 630 mg/kg

11.2 Chronic toxicity:

Chronic over-exposure may lead to varying degrees of paralysis of the extremities. A condition known as "Bartosis" will be observed (x-ray of lungs will be influenced). Symptoms of over-exposure will disappear with time as the body eliminates Barium.

12. DISPOSAL CONSIDERATIONS

Waste and Packaging Treatment: Dispose of in compliance with local, state, and federal laws and regulations.

13. TRANSPORT

13.1 UN No.: 1564

13.2 DOT Classification

DOT Proper shipping name: Barium compounds, n.o.s.

Labels required: 6.1 (TOXIC)

Packing group: PGIII
Hazard class:

14. REGULATORY INFORMATION

14.1 Authorized limit values:

TLV (ACGHIH) - TWA: 0.5 mg/m³ for soluble Barium compounds; Barium carbonate is not listed.

14.2 Other regulations:

15. OTHER INFORMATION

15.1 Edition date: July 92
15.2 Revision No.: 97-01
15.3 Updated: March 97