

MATERIAL SAFETY DATA SHEET**Product Name:** Barium carbonate**CAS No.:** 513-77-9**Version:** 0**1. Identification**

Product Code : 90338
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
BARIUM CARBONATE	513-77-9	99- 100%

3. Hazards Identification**Hazard classification****Health hazards**

Acute toxicity (Oral) : Category 3

Labels elements**Hazard symbol****Signal word** : Danger**Hazard statement** : Toxic if swallowed.**Precautionary statement****Prevention**

: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response

: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

Storage

: Store locked up.

Disposal

: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification : None.

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4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
- Most important symptoms/effects, acute and delayed** : Toxic if swallowed.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

5. Fire fighting measures

- General fire hazards** : No unusual fire or explosion hazards noted.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Fire may produce irritating, corrosive and/or toxic gases.
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

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6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Methods and material for containment and cleaning up** : Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.
- Notification Procedures** : Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

- Precautions for safe handling** : Use personal protective equipment as required. Do not breathe mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling. Avoid contact with skin. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Conditions for safe storage, including any incompatibilities** : Store locked up. Store in a well-ventilated place. Keep container tightly closed.

8. Exposure Controls Personal Protection

Control parameters Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
BARIUM CARBONATE - as Ba	TWA	0.5 mg/m ³	US. ACGIH Threshold Limit Values (2011)
	REL	0.5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)

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	PEL	0.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles) and a face shield.

Hand protection : Chemical resistant gloves.

Other : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation use suitable respirator.

Hygiene measures : Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using the product. Avoid contact with eyes, skin, and clothing.

9. Physical and Chemical Properties

Appearance : White Solid Powder.

Odor : Odorless

pH : No data available.

Melting point/freezing point : 811 °C

Initial boiling point and boiling range : 1,300 °C

Flash Point : Not applicable

Vapor pressure : Estimated 0.01 kPa (25 °C)

Vapor density : No data available.

Relative density : 4.3 (20 °C)

Solubility in water : Practically Insoluble

Solubility (other) : No data available.

Formula : CO₃.Ba

Molecular Weight : 197.37 g/mol

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10. Stability and Reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Excessive heat. Contact with incompatible materials.
Incompatible materials	:	Strong oxidizing agents. Acids.
Hazardous decomposition products	:	Thermal decomposition may release oxides of carbon.

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	Toxic if swallowed.
Inhalation	:	Mist or vapors may cause irritation.
Skin contact	:	May cause irritation.
Eye contact	:	May cause irritation.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	LD 50 (Rat): 418 mg/kg
Dermal Product	:	No data available.
Inhalation Product	:	No data available.
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	May cause skin irritation.
Serious eye damage/eye irritation Product	:	May irritate eyes.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE : No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE : No carcinogenic components identified.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050 : No carcinogenic components identified.

Germ cell mutagenicity In vitro Product	:	No mutagenic components identified
In vivo Product	:	No mutagenic components identified
Reproductive toxicity Product	:	No components toxic to reproduction

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Specific target organ toxicity - single exposure Product : No data available.
Specific target organ toxicity - repeated exposure Product : No data available.
Aspiration hazard Product : Not classified.
Other effects : None known.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product : No data available.
Specified substance(s): BARIUM CARBONATE LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 6,950 mg/l Mortality
Aquatic invertebrates Product : No data available.

Chronic hazards to the aquatic environment :

Fish Product : No data available.
Aquatic invertebrates Product : No data available.
Toxicity to Aquatic Plants Product: : No data available.

Persistence and degradability

Biodegradation Product : The product is not expected to be biodegradable.
BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : No data available on bioaccumulation.

Partition coefficient n-octanol / water (log Kow) Product : No data available.

Mobility in soil : No data available.

Other adverse effects : The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal consideration

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

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14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1564	BARIUM CARBONATE	6.1	III	No
IMDG	UN 1564	BARIUM CARBONATE	6.1	III	No
IATA	UN 1564	BARIUM CARBONATE	6.1	III	No

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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