

BARIUM CARBONATE

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

General Information :

Product Name : BARIUM COMPOUNDS, N.O.S. (BARIUM CARBONATE)

Other Names : BARIUM CARBONATE CARBONIC ACID, BARIUM SALT (1:1)

UN No. : 1564

Dangerous Goods Class : 6.1

Subsidiary Risk : None Allocated

Hazchem Code : 2Z

Pack Group : II

EPG : 37

Poisons Schedule : 6

Uses :

In ceramics, paints, enamels, marble substitutes and rubber. In the manufacture of paper, barium salts, electrodes and optical glasses. As an analytical reagent.

1.1 Physical Description / Properties

Appearance : White heavy powder. Tasteless and odourless.

Formula : BaCO₃

Boiling Point : DEC deg C

Melting Point : 1740 deg C

Vapour Pressure : N/A

Specific Gravity : 4.43 (water = 1)

Flash Point : N/A

pH : N/A ()

Solubility in water : 0.024 g/l (25 deg C)

Flammability Limits (as percentage volume in air)

Lower Explosion Limit : N/A

Upper Explosion Limit : N/A

1.2 Other Properties

Decomposes at about 1300 degrees C into BaO and CO₂. Almost insoluble in water, 0.024 g/L; slightly soluble (1:1000) in CO₂ water; soluble in dilute HCl, HNO₃ or acetic acid; also soluble in solution of NH₄Cl or NH₄NO₃.

1.3 Ingredients

Chemical Entity	CAS No.	Proportions (%)
BARIUM CARBONATE	[513-77-9]	> 99

2. HEALTH HAZARD INFORMATION

2.1 Health Effects - Acute

Swallowed

Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause muscle paralysis, respiratory failure, and possible death. May cause pain, weakness and numbness with possible muscle paralysis.

Eye

Causes eye irritation.

Skin

Causes skin irritation. Exposure may cause irritation characterised by redness, dryness and inflammation.

Inhaled

May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung oedema.

2.2 Health Effects - Chronic

No data available

2.3 First Aid

Swallowed

Contact a Doctor or the Poisons Information Centre immediately. Give 1 - 3 cups of water to drink. Induce vomiting (Ipecac Syrup or stimulate throat with finger). Immediately transport to a hospital or doctor.

Eye

Immediately flush eyes with clean water for at least 15 minutes - retracting eyelids often. If condition persists immediately transport to a hospital or doctor.

Skin

Remove all contaminated clothing including footwear. Wash affected areas thoroughly for at least 15 minutes with clean water. If condition persists immediately transport to a hospital or doctor.

Inhaled

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, experienced person may administer oxygen. Immediately transport to a hospital or doctor.

First Aid Facilities

Ensure an eye bath and safety shower are available and ready for use.

2.5 Advice to Doctor

Treat symptomatically based on judgement of doctor and individual reactions of patient.

2.6 Toxicity Data

Oral LD50 = 418 mg/kg (Rat) ; 200 mg/kg (Mouse) Dermal LD50 = not available Inhalation LC50 = not available

3. PRECAUTIONS FOR USE

3.1 Exposure Standards

An exposure standard has not been established for this product by Worksafe Australia.

3.2 Engineering Controls

Ensure adequate ventilation to maintain exposure levels to a minimum and below applicable workplace standards.

3.3 Personal Protection

Wear appropriate OSHA/MSHA-approved respirator, chemical resistant gloves, safety goggles, butyl rubber gloves and boots, cotton overalls to protect skin and clothing. Wash hands and face thoroughly after handling and before work breaks, eating, drinking, smoking and using toilet facilities.

3.4 Flammability

Material is non-flammable.

4. SAFE HANDLING INFORMATION

4.1 Storage / Transport

Transport or store in a dry place away from strong acids. No special precautions necessary.

4.2 Packaging / Labelling

International (Water, I.M.O.) :

Proper Shipping Name: BARIUM COMPOUND, N.O.S. (BARIUM CARBONATE)

Hazard Class: 6.1

UN/NA: UN1564

Packing Group: III

International (Air, I.C.A.O.) :

Proper Shipping Name: BARIUM COMPOUND, N.O.S. (BARIUM CARBONATE)

Hazard Class: 6.1 UN/NA: UN1564

Packing Group: III

Label Precautions:

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Risk Phrases

R22 Harmful if swallowed.

Safety Phrases

S24/25 Avoid contact with skin and eyes.

4.3 Spills and Disposal

Spills

Do not breathe dust. Avoid contact with eyes, skin and clothing. Clean-up personnel should wear full protective clothing including breathing protection.

Avoid raising dust. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Disposal

Bury in a landfill site approved for the disposal of chemical and hazardous waste. Observe all Federal, State and Local regulations.

4.4 FIRE AND EXPLOSION HAZARD

Fire / Explosion

Will not burn or explode. Evolves toxic gases of carbon monoxide and carbon dioxide on decomposition. Incompatible with strong acids, bromine trifluoride, and 2-furanpercarboxylic acid. Hazardous polymerisation will not occur.

Extinguishing Media

Fire-fighters should wear full protective clothing including self-contained breathing apparatus. Material is non-combustible. In case of fire use equipment/media appropriate to surrounding fire conditions.