

BARIUM BROMIDE 10553-31-8 MSDS

Section 1 - Chemical Product MSDS Name: Barium bromide anhydrous 99.999%
Material Safety Data Sheet
Synonym: Barium dibromide

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content
10553-31-8	Barium bromide, anhydrous	99.999

Hazard Symbols: XN
Risk Phrases: 20/22

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Harmful by inhalation and if swallowed. Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

Harmful if swallowed. The toxicological properties of this substance have not been fully investigated. May cause kidney, liver and spleen damage. 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. 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. 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.

Inhalation:

Harmful if inhaled. The toxicological properties of this substance have not been fully investigated. Inhalation of dust may cause respiratory tract irritation. Inhalation at high concentrations may cause CNS depression and asphyxiation.

Chronic:

Inhalation at high concentrations may cause CNS depression and asphyxiation.

Section 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Section 5 - FIRE FIGHTING 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. Substance is noncombustible.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use agent most appropriate to extinguish fire.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Use only in a well-ventilated area. 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:

Store in a cool, dry place. Store in a tightly closed container. Store protected from moisture.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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 CAS# 10553-31-8: United Kingdom, WEL - TWA: (listed as barium, soluble compounds): mg/m³ TWA (as Ba) United Kingdom, WEL - STEL: (listed as barium, soluble compounds) 1.5 mg/m³ STEL (as Ba) United States OSHA: 0.5 mg/m³ TWA (as Ba) (listed under Barium, soluble compounds). Belgium - TWA: (listed as barium, soluble compounds): 0.5 mg/m³ V (as Ba) France - VME: (listed as barium, soluble compounds): 0.5 mg/m³ VM (as Ba) Germany: (listed as barium, soluble compounds): 0.5 mg/m³ VME (as Malaysia: (listed as barium, soluble compounds): 0.5 mg/m³ TWA (a Ba) Netherlands: (listed as barium, soluble compounds): 0.5 mg/m³ MAC Ba) Spain: (listed as barium, soluble compounds): 0.5 mg/m³ VLA-ED (a Ba) 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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Powder

Color: white

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 850 deg C
Autoignition Temperature: Not available.
Flash Point: Not available.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature:
Solubility in water: Freely Soluble.
Specific Gravity/Density:
Molecular Formula: BaBr₂
Molecular Weight: 297.16

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:
Not currently available.
Conditions to Avoid:
Incompatible materials, dust generation, moisture.
Incompatibilities with Other Materials:
Moisture, oxidizing agents, acids.
Hazardous Decomposition Products:
Hydrogen bromide.
Hazardous Polymerization: Has not been reported

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 10553-31-8 unlisted.
LD50/LC50:
Not available.
Carcinogenicity:
Barium bromide, anhydrous - Not listed by ACGIH, IARC, or NTP.

Section 12 - ECOLOGICAL INFORMATION

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA
Shipping Name: BARIUM COMPOUND, N. O. S.
Hazard Class: 6.1
UN Number: 1564

Packing Group: III
IMO
Shipping Name: BARIUM COMPOUND, N. O. S.
Hazard Class: 6.1
UN Number: 1564
Packing Group: III
RID/ADR
Shipping Name: BARIUM COMPOUND, N. O. S.
Hazard Class: 6.1
UN Number: 1564
Packing group: III

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 20/22 Harmful by inhalation and if swallowed.

Safety Phrases:

S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)

CAS# 10553-31-8: No information available.

Canada

CAS# 10553-31-8 is listed on Canada's NDSL List.

CAS# 10553-31-8 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 10553-31-8 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

N/A
