

# **Material Safety Data Sheet**

#### **Barium chloride**

# SECTION 1 - CHEMICAL PRODUCT AND COMPANY IENTIFICATION

Chemical product name: Barium chloride

Common chemical name: barium chloride dihydrate, barium dichloride

**Company information**: Choice Chemicals Ltd.

Centre of City, No.235 Wuyi Road, Furong District,

Changsha, Hunan 410011, P.R. China

Tel: 0086 731 89856736 Fax: 0086 73189878447 E-mail: info@choice-chem.com

**24 hr Emergency number**: 0086 13298652316

# SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

Hazards Component Name CAS-No. Average by Weight

Barium chloride dihydrate 10326-27-9 99%

# **SECTION 3 - HAZARDS IDENTIFICATION**

## **Potential Health Effects:**

**Eye:** May cause redness, tearing, irritation, burning, blurred vision.

Skin: May cause swelling and irritation.

**Ingestion:** Harmful if swallowed. Larger doses cause cardiac and respiratory failure, kidney and GI tract hemorrhage. Paralysis, hypokalemia, heart disorder may occur.

**Inhalation:** Toxic effects of mist inhalation including muscle tightness, salivation, vomiting, diarrhea, abdominal pain, convulsions, tremors, anxiety, dyspnea, slow pulse, irregular heartbeat.

**Chronic Exposure:** Exposure may result in mucous membrane irritation, dermatitis, conjunctivitis. May cause bronchitis.

# **SECTION 4 - FIRST AID MEASURES**



**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:** Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

**Ingestion:** Get medical aid at once. Give oxygen if respiration is depressed. Induce vomiting (touch finger to back of throat) keeping head lower than hips (prevent aspiration into lungs). Give conscious non-convulsive victim two tablespoons of epsom salts (magnesium sulfate) in a glass of warm water, then 2-4 glasses of water.

**Inhalation:** Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Note to Physician: Treat symptomatically and supportively.

# **SECTION 5 - FIRE FIGHTING MEASURES**

**General Information:** Emits toxic fumes when involved in a fire. Containers may explode in the heat of a fire. Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust. Wear self-contained breathing apparatus and protective clothing to prevent contact.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

# SECTION 6 - ACCIDENTAL RELEASE MEASURES

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

**Spills/Leaks:** Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal.

# **SECTION 7 - HANDING AND STORAGE**

**Handling:** Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

**Storage:** Store capped at room temperature. Store in amber containers. Protect from heat and incompatibles.

# **SECTION 8 - EXPOSURE CONTROLS, PERSONAL, PROTECTION**



**Engineering Controls:**Provide local exhaust or general dilution ventilation.

# **Exposure Limits:**

Chemical Name	ACGIH	NIOSH	OSHA- Final PELs
Barium chloride	none listed	none listed	none listed
dihydrate			

**OSHA Vacated PELs:** Barium chloride dihydrate: No OSHA Vacated PELs are listed for this chemical.

# **Personal Protective Equipment:**

# Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

# **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Powder.

Appearance: white.

Odor: Odorless.

pH: neutral.

Vapor Pressure: 0.1 mm Hg @20C.

**Vapor Density:** Not available.

Evaporation Rate: Not available

Viscosity: Not available.

Boiling Point: 2840 deg F.

Freezing/Melting Point: 1760 deg F.

**Decomposition Temperatur:** Not available.

Autoignition Temperature: Not available.

Flash Point: Not available.

NFPA Rating: Not published.



Explosion Limits, Lower: Not available.

Upper: Not available.

Solubility in water: Soluble.

Specific Gravity/Density: 3.097.

Molecular Formula: Not available.

Molecular Weight: Not available.

# **SECTION 10 - STABILITY AND REACTIVITY DATA**

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

**Incompatibilities with Other Materials:** None reported.

Hazardous Decomposition Products: Oxides of nitrogen, oxides of carbon, oxides of

sodium.

Hazardous Polymerization: Not available.

#### SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS:

**CAS#**10326-27-9 unlisted.

LD50/LC50: Not available.

Carcinogenicity: CAS# 10326-27-9:

ACGIH: A4 - Not Classifiable as a Human Carcinogen (listed as Barium).

**Epidemiology:** Barium chloride mist is toxic. Barium Chloride solutions are an eye, skin, mucous membrane irritant: poisoning affects central nervous, gastrointestinal, and

muscular systems.

**Teratogenicity:** No data available.

**Reproductive:** No data available.

**Mutagenicity:** No data available. **Neurotoxicity:** No data available.

Other Studies: No data available.

# **SECTION 12 - ECOLOGICAL INFORMATION**

No information available.



# **SECTION 13 - DISPOSAL CONSIDERATIONS**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed. RCRA U-Series: None listed.

# **SECTION 14 - TRANSPORT INFORMATION**

**US DOT** 

Shipping Name: BARIUM COMPOUNDS, N.O.S.(BARIUM CHLORIDE)

Hazard Class: 6.1 UN Number: UN1564 Packing Group: PG III.

# SECTION 15 - REGULATORY INFORMATION

#### **US Federal**

## TSCA:

CAS# 10326-27-9 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).

**Health & Safety Reporting List:** None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules:** None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule:** None of the chemicals in this material have a SNUR under TSCA.

#### SARA

Section 302 (RQ): None of the chemicals in this material have an RQ.

Section 302 (TPQ): None of the chemicals in this product have a TPQ.

SARA Codes: CAS # 10326-27-9: acute, chronic

**Section 313**: This material contains Barium chloride dihydrate (listed as \*\* undefined \*\*), 99%, (CAS# 10326-27-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act**: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.



#### **Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE:** CAS# 10326-27-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ. California No Significant Risk Level: None of the chemicals in this product are listed.

# **European/International Regulations**

**European Labeling in Accordance with EC Directives Hazard Symbols:** Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection): CAS# 10326-27-9: 1

Canada

Canada

None of the chemicals in this product are listed on the DSL or NDSL list. WHMIS: Not available. CAS# 10326-27-9 is not listed on Canada's Ingredient Disclosure List.

#### **Exposure Limits:**

CAS# 10326-27-9: OEL-AUSTRALIA:TWA 0.5 mg(Ba)/m3 OEL-AUSTRIA:TWA 0.5 mg(Ba)/m3 OEL-BELGIUM:TWA 0.5 mg(Ba)/m3 OEL-DENMARK:TWA 0.5 mg(Ba) /m3 OEL-FINLAND:TWA 0.5 mg(Ba)/m3 OEL-GERMANY:TWA 0.5 mg(Ba)/m3 (tot al dust) OEL-HUNGARY:STEL 0.5 mg(Ba)/m3 OEL-THE NETHERLANDS:TWA 0.5 mg(Ba)/m3 OEL-THE PHILIPPINES:TWA 0.5 mg(Ba)/m3 OEL-POLAND:TWA 0.5 mg(Ba)/m3;STEL 1.5 mg(Ba)/m3 OEL-SWITZERLAND:TWA 0.5 mg(Ba)/m3;STEL 1 mg(Ba)/m OEL-TURKEY:TWA 0.5 mg(Ba)/m3 OEL-UNITED KINGDOM:TWA 0.5 mg(Ba)/m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV.

# **SECTION 16 - OTHER INFORMATION**



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