

**MATERIAL SAFETY DATA SHEET**

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MSDS No. BB 30  
Effective Date August 12, 1998

**SECTION V HEALTH HAZARD DATA** BB 30

**Threshold Limited Value** TWA: 0.5 mg/m<sup>3</sup> as Barium (ACGIH, 1992-93). U.S. H.E.W. Toxic Substance List (1976) gives; orl-hmn TDLo: 80 mg/Kg.; orl-rat LDLo: 335 mg/Kg.

**Effects of Overexposure** **HARMFUL OR FATAL IF SWALLOWED.** Oral intake may cause weakness, salivation and nausea, followed by vomiting and diarrhea. Patient may become cold and experience varying degrees of paralysis. **INHALATION:** May be harmful, with symptoms similar to those of oral intake. Observe allowable limits. **EYES AND SKIN CONTACT:** Not usually severe, but may cause irritation to sensitive individuals.

**Emergency and First Aid Procedures** **FIRST AID: INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink and induce vomiting. Repeat until vomit fluid is clear. Call physician immediately. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention. **SKIN:** Flush with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**SECTION VI REACTIVITY DATA**

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Excessive temperature and heat.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Bromine Trifluoride and 2-Furan percarboxylic acid, violent reaction.

**Hazardous Decomposition Products** Thermal decomposition or burning may produce toxic fumes of chlorine gas, Hydrochloric acid and Barium oxide, Barium dust.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>	
	<b>May Occur</b>	<b>Will Not Occur</b>
		X

Not Applicable.

**SECTION VII SPILL OR LEAK PROCEDURES**

**Steps to be taken in case material is released or spilled** Recover for use if not contaminated. Wearing proper protective clothing and ventilation, sweep up and collect in dry state and place in a suitable container for proper disposal. Flush spill area. Do not get into sewer or waterways. Use U.S.B.M. approved toxic dust respirator.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

**SECTION VIII SPECIAL PROTECTION INFORMATION**

**Respiration Protection (Specify Type)** None should be needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

<b>Ventilation</b>	<b>Local Exhaust</b>	Recommended.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	Recommended.	<b>Other</b>	No.

<b>Protective Gloves</b>	Rubber.	<b>Eye Protection</b>	Chemical safety glasses.
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**Other Protective Equipment** Goggles, lab coat or apron, vented hood, proper gloves, eye wash station.

**SECTION IX SPECIAL PRECAUTIONS**

**Precautions to be Taken in Handling & Storing** Store in a dry place, away from food products. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.  
Do not breath dust or mist. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b> No. 5	<b>Date</b> 8/12/98	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

**SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE**

<b>Product</b>	BARIUM CHLORIDE	
<b>Chemical Synonyms</b>	Barium Dichloride	
<b>Formula</b>	(a) BaCl <sub>2</sub>	(b) BaCl <sub>2</sub> ·2H <sub>2</sub> O
<b>Unit Size</b>	up to 2.5 Kg.	
<b>C.A.S. No.</b>	(a) 10361-37-2	(b) 10326-27-9

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**CHEMTREC**  
800-424-9300  
Day 716-226-6177

<b>Health</b>	3
<b>Fire</b>	0
<b>Reactivity</b>	0

**NFPA HAZARD RATING**

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

**HMIS \***

HEALTH	HAZARD	REACTIVITY
3	0	0

**SECTION II INGREDIENTS OF MIXTURES**

Principal Component(s)	%	TLV Units
Barium Chloride	100%	See Section V.

**DANGER!** **POISON. MAY BE FATAL IF SWALLOWED.**

**CAUSES IRRITATION. MAY BE HARMFUL IF INHALED.**

**SECTION III PHYSICAL DATA**

<b>Melting Point (°F)</b>	Transition 925°C (1696°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	(a) 3.856 (b) 3.1 @ 24°C.
<b>Boiling Point (°F)</b>	1560°C (2840°F)	<b>Percent Volatile by Volume (%)</b>	Negligible as solid.
<b>Vapor Pressure (mm Hg)</b>	Negligible as solid.	<b>Evaporation Rate</b>	( =1) Not applicable.
<b>Vapor Density (Air=1)</b>	7.21		
<b>Solubility in Water</b>	31 grams per 100 mL. water @ 32°F (BaCl <sub>2</sub> ).		
<b>Appearance &amp; Odor</b>	Fine white crystals or powder; no odor.		

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

<b>Flash Point (Method Used)</b>	Non-flammable.	<b>Flammable Limits in Air % by Volume</b>	N/A	<b>Lower</b>	<b>Upper</b>
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**Extinguisher Media** Use any media suitable for extinguishing supporting fire.

**SPECIAL FIREFIGHTING PROCEDURES**

A NIOSH/MSHA-approved self-contained breathing apparatus should be worn for protection against barium-containing dust, mist or fumes. Wear full protective clothing.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO.154)

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Fire or excessive heat may produce hazardous decomposition products, as dust or fume.

D.O.T. Barium compounds, n.o.s., (Barium chloride), 6.1, UN 1564, PG III

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20