



J.T. Baker Inc.
222 Red School Lane
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151
National Response Center 800-424-8802
Chemtrec 800-424-9300

National Response In Canada
CANUTEC 613-996-6666
Outside U.S. and Canada
Chemtrec 202-483-7616

MATERIAL SAFETY DATA SHEET

FICHE
SIGNALÉTIQUE

HOJAS DE DATOS
DE SEGURIDAD

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

B0372 -03
Effective: 03/09/92

Barium Chloride, Dihydrate

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J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

Product Name: Barium Chloride, Dihydrate
Common Synonyms: Barium Dichloride, Dihydrate
Chemical Family: Barium Compounds
Formula: $BaCl_2 \cdot 2H_2O$
Formula Wt.: 244.27
CAS No.: 10326-27-9
NIOSH/RTECS No.: CQ8751000
Product Use: Laboratory Reagent
Product Codes: 0978, 0974, 0970

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* System

HEALTH SEVERE	FLAMMABILITY NONE	REACTIVITY NONE	CONTACT SLIGHT
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Laboratory Protective Equipment

 GOGGLES	 LAB COAT	 VENT HOOD	 PROPER GLOVES
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U.S. Precautionary Labeling

POISON! DANGER!
CAUSES IRRITATION. MAY BE FATAL IF SWALLOWED.
Do not get in eyes, on skin, on clothing. Keep in tightly closed container.
Wash thoroughly after handling.



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PRECAUTIONARY LABELING (CONTINUED)

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International Labeling

Harmful by inhalation and if swallowed.
 After contact with skin, wash immediately with plenty of soap and water.

SAF-T-DATA* Storage Color Code: Blue (health)

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SECTION II - COMPONENTS

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<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLU</u>
Barium Chloride, Dihydrate	10326-27-9	99-100	N/E	N/E

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SECTION III - PHYSICAL DATA

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Boiling Point: N/A

Vapor Pressure (mmHg): N/A

Melting Point: 963°C (1765°F)
 (at 760 mm Hg)

Vapor Density (air=1): N/A

Specific Gravity: 3.86
 (H₂O=1)

Evaporation Rate: N/A

Solubility(H₂O): Complete (100%)

% Volatiles by Volume: 0
 (21°C)

pH: N/A

Odor Threshold (ppm): N/A

Physical State: Solid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: Colorless crystals. Odorless.



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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup): N/A

Autoignition Temperature: N/A

Flammable Limits: Upper - N/A Lower - N/A

Fire Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

Unusual Fire & Explosion Hazards

None identified.

Toxic Gases Produced

hydrogen chloride

Explosion Data-Sensitivity to Mechanical Impact

None identified.

Explosion Data-Sensitivity to Static Discharge

None identified.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value (TLV/TWA): 0.5 mg/m³

TLV is for Barium, soluble compounds, as Ba.

Short-Term Exposure Limit (STEL): Not Established

Permissible Exposure Limit (PEL): 0.5 mg/m³

PEL is for Barium, soluble compounds, as Ba.

Toxicity of components

Oral Rat LD₅₀ for Barium Chloride, Dihydrate

118 mg/kg



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SECTION V - HEALTH HAZARD DATA (CONTINUED)

Subcutaneous Rat LD₅₀ for Barium Chloride, Dihydrate 178 mg/kg
Intraperitoneal Mouse LD₅₀ for Barium Chloride, Dihydrate 54 mg/kg
Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No

Carcinogenicity
None identified.

Reproductive Effects
None identified.

Effects of Overexposure

INHALATION: none identified
SKIN CONTACT: irritation
EYE CONTACT: irritation
SKIN ABSORPTION: none identified
INGESTION: is harmful and may be fatal
CHRONIC EFFECTS: irritation of respiratory system, central nervous system damage, damage to spleen, liver, and bone marrow

Target Organs
none identified

Medical Conditions Generally Aggravated by Exposure
none identified

Primary Routes of Entry
ingestion, skin contact, eye contact

Emergency and First Aid Procedures

INGESTION: CALL A PHYSICIAN. If swallowed, if conscious, immediately induce vomiting.
INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.



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 SECTION V - HEALTH HAZARD DATA (CONTINUED)
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SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: Yes Chronic: Yes Flammability: No Pressure: No Reactivity: No

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: No

SARA 313 Toxic Chemicals: Yes Contains Barium

Generic Class: Generic Class Removed from CFR: 7/1/91

TSCA Inventory: Yes

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 SECTION VI - REACTIVITY DATA
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Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: none documented

Incompatibles: none identified

Decomposition Products: hydrogen chloride

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 SECTION VII - SPILL & DISPOSAL PROCEDURES
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Steps to be Taken in the Event of a Spill or Discharge

Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D005 (EP Toxic Waste)



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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT
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Ventilation: Use general or local exhaust ventilation to meet TLV requirements.

Respiratory Protection: Respiratory protection required if airborne concentration exceeds TLV. At concentrations up to 3 ppm, a dust/mist respirator is recommended. Above this level, a self-contained breathing apparatus is advised.

Eye/Skin Protection: Safety goggles, uniform, apron, rubber gloves are recommended.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS
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SAF-T-DATA* Storage Color Code: Blue (health)

Storage Requirements

Keep container tightly closed. Store in secure poison area.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION
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Domestic (D.O.T.)

Proper Shipping Name: Barium compounds, n.o.s. (Barium Chloride, Dihydrate)
Hazard Class: 6.1
UN/NA: UN1564 Packaging Group: III
Labels: KEEP AWAY FROM FOOD
Regulatory References: 49CFR 172.101

International (I.M.O.)

Proper Shipping Name: Barium compounds, n.o.s. (Barium Chloride, Dihydrate)
Hazard Class: 6.1 I.M.O. Page: 6079
UN: UN1564 Marine Pollutants: Yes Packaging Group: III
Labels: HARMFUL - STOW AWAY FROM FOOD STUFFS
Regulatory References: 49CFR 172.12(b); IMDG Code



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 SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)
 =====

AIR (I.C.A.O.)

Proper Shipping Name: Barium compounds, n.o.s. (Barium Chloride, Dihydrate)
 Hazard Class: 6.1
 UN: UN1564 Packaging Group: III

Labels: KEEP AWAY FROM FOOD

Regulatory References: 49CFR 172.101; ICAO=== We believe the transportation data and references contained herein to be factual and the opinion of qualified experts. The data is meant as a guide to the overall classification of the product and is not package size specific, nor should it be taken as a warranty or representation for which the company assumes legal responsibility.=== The information is offered solely for your consideration, investigation, and verification. Any use of the information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations. See shipper requirements 49CFR 172.3 and employee training 49CFR 173.1.

U.S. Customs Harmonization Number: 28273800003

N/A = Not Applicable or Not Available
 N/E = Not Established

 The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS

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FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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 Approved by Quality Assurance Department.