



Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Barium Chloride Dihydrate, ACS
NCL Catalog Number B-11X
Product Description Laboratory chemical
Manufacturer EMD Chemicals Inc. PO Box 70, 480 Democrat Road
Gibbstown, NJ 08027
Supplier NCL of Wisconsin, Inc. PO Box 8, Birnamwood, WI 54414
Telephone: 1-800-648-7836 Fax: 715-449-2454
Email: nclabs@nclabs.com Emergency Contact: 1-800-424-9300 (Chemtrec)

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity Oral Category 3
Aquatic Acute Category 3



Signal Word Danger

Hazard Statements

H301 Toxic if swallowed.
H402 Harmful to aquatic life.

Precautionary Statements

P264 Wash exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P330 Rinse mouth.
P405 Store locked up.
P501 Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Name	CAS #	Approximate %
Barium Chloride, Dihydrate	10326-27-9	100

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.
If Inhaled Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
In Case of Skin Contact Remove contaminated clothing and shower/wash exposed skin with mild soap and water. Rinse with warm water. Do not apply chemical neutralizing agents. Take victim to a doctor if irritation persists.

In Case of Eye Contact

Immediately flush eyes with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if irritation persists.

If Swallowed

Rinse mouth with water. Give nothing to drink. Victim is fully conscious: Immediately induce vomiting by giving a 0.9% saline solution. Immediately consult a doctor/medical service. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: Immediately take victim to the hospital. Doctor: Administration of chemical antidote. Gastric Lavage.

Most Important Symptoms/Effects Acute and Delayed

After Inhalation

Dry/sore throat. Coughing.

After Eye Contact

Redness of the eye tissue.

After Ingestion

Vomiting. Nausea. Abdominal pain. Blood in the stool. Bleeding of the gastrointestinal tract. Increased salivation. Myasthenia. Cramps/uncontrolled muscular contractions. Paralysis. Disturbances of the heart rate. High arterial pressure.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical advice if you feel unwell.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

For surrounding fires: All extinguishing media allowed.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Release of toxic and corrosive gases/vapors (hydrogen chloride). Reacts with strong oxidizers and with some acids to release toxic and corrosive gases/vapors (hydrogen chloride).

Special Protective Actions for Fire-Fighters

Wear a self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray. Dilute toxic gases with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Use personal protective equipment (see section 8). Safety glasses, gloves, gas/dust mask. Dust cloud production: compressed air/oxygen apparatus. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit. Evacuate area of non-essential personnel. Eliminate ignition sources.

Environmental Precautions

Prevent entry to surface and ground waters.

Methods and Materials for Containment and Cleaning Up

Stop dust cloud by covering with sand/earth. Collect spillage. Store away from other materials. Wash clothing and equipment after handling. Ensure compliance with local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Conditions for Safe Storage Including any Incompatibilities

Keep in original container, tightly closed and stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from; strong acids, strong oxidizers, and heat sources.

Additional Hazards and Information

Pulverization rapidly increases toxic concentration. Do not discharge waste into drain. Avoid formation of dust cloud. Keep away from naked flames/heat.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Barium Chloride, Dihydrate (10326-27-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures

Avoid all unnecessary exposure.

Eye/Face Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

Skin Protection

Protective gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid, crystalline powder
Color	Colorless to white
Odor	Odorless
Odor Threshold	Not determined
pH	5-8 (5% Solution)
Melting Point/Freezing Point	963°C/Not determined
Initial Boiling Point and Boiling Range	1560°C
Flash Point	Not applicable
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper/Lower Flammability/Explosive Limits	Not determined
Vapor Pressure	<0.1 hPa
Vapor Density	Not determined
Relative Density	3.1
Solubility	Soluble in water. Water:36 g/100ml
Partition Coefficient: n-octanol/water	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Release of toxic and corrosive gases/vapors (hydrogen chloride) upon burning. Reacts with strong oxidizers and acids to release corrosive gases/vapors.
Chemical Stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reactions	No data available
Conditions to Avoid	Incompatible materials and moisture
Incompatible Materials	Strong oxidizers and acids.
Hazardous Decomposition Products	Hydrogen chloride and barium

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity	Toxic if swallowed.
Barium Chloride, Dihydrate (10326-27-9)	
LD50 oral rat	118 mg/kg
Skin Corrosion/Irritation	Not classified
Serious Eye Damage/Irritation	Not classified
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity (Single Exposure)	Not classified
Specific Target Organ Toxicity (Repeated Exposure)	Not classified
Aspiration Hazard	Not classified
Potential Adverse Human Health Effects and Symptoms	No data available
Symptoms/Injuries After Inhalation	Dry/sore throat. Coughing.
Symptoms/Injuries After Eye Contact	Redness of the eye tissue.
Symptoms/Injuries After Ingestion	Vomiting. Nausea. Abdominal pain. Blood in stool. Bleeding of the gastrointestinal tract. Increased salivation. Myasthenia. Cramps/uncontrolled muscular contractions. Paralysis. Changes in heart rate. High arterial pressure.
Likely Routes of Exposure	Inhalation, skin, and eye contact.
Other Information	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecology – Water Toxicity Mild water pollutant to surface water. Ground water pollutant. Slightly harmful to fish. Harmful to invertebrates. Harmful to aquatic plants. Not harmful to bacteria.

Barium Chloride, Dihydrate (10326-27-9)	
LC50 fish 1	158-500 mg/l (Pisces; Lethal)
EC50 Daphnia 1	21.9 mg/l (48h; Daphnia magna)
LC50 fish 2	870 mg/l (Leuciscus idus)
Threshold Limit algae 1	15 mg/l (Scenedesmus subspicatus)
Threshold Limit algae 2	34 mg/l (Algae)

Persistence and Degradability Readily biodegradable in water. Ozonation in water. Biodegradable in the soil. No test data on the mobility of the components of the mixture available. Ozonation in the air.

Bioaccumulative Potential Not established

Mobility in Soil Not established

Other Adverse Effects Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

Disposal Recommendations Dispose of contents/containers in accordance with local, state and federal regulations. Hazardous waste shall not be mixed together with other waste. Remove to an authorized dump.

Other Information Avoid release to the surrounding environment.

SECTION 14: TRANSPORT INFORMATION

UN Number	1564
UN Shipping Name	Barium compound
Transport Hazard Class(es)	6.1 – Poisonous materials.
Packing Group	III
Environmental Hazards	Not applicable
Transport in Bulk	240
Other Precautions	Not applicable

SECTION 15: REGULATORY INFORMATION

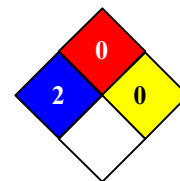
Barium Chloride, Dihydrate (10326-27-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

SECTION 16: OTHER INFORMATION

Revision Date: 04/02/2015

NFPA Hazards

Health Hazard	2: Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.
Fire Hazard	0: Materials that will not burn under typical fire conditions.
Reactivity/Instability	0: Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health	2: Temporary or minor injury may occur.
Flammability	0: Materials that will not burn.
Physical Hazard	0: Materials that are normally stable, even under fire conditions, and will not react with water.
Personal Protection	E

B-11X	
Health	2
Flammability	0
Physical Hazard	0
Personal Protection	E

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, NCL of Wisconsin, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for their conditions of use. Accordingly, NCL of Wisconsin, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information.

END OF SAFETY DATA SHEET