Safety Data Sheet

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision date: 17.02.2025	*Version: 6.1*	*Print date: 17.02.2025*

SECTION 1: Identification

Product identifier

Trade name/designation:	Barium chloride 10% w/v
Product No.:	BDH7238-1
Synonyms:	none
CAS No.:	Not applicable

Relevant identified uses of the substance or mixture and uses advised against

Recommended use	For Further Manufacturing Use Only
Uses advised against	Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet

Supplier

VWR International LLC

Street	100 Matsonford Road Radnor Corporate Center, Building One, Suite 200 P. O. Box 6660
Postal code/City	Radnor, PA 19087, United States
Telephone	+1-800-932-5000 toll-free within US/Canada +1-610-386-1700
Telefax	+1-610-728-2103

Emergency phone number

Telephone +1-800-424-9300 (Chemtrec, 24 hrs/day, 7 days/week, USA)

Preparation Information

VWR International - Product Information Compliance

E-mail SDS@avantorsciences.com

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Hazard classes and hazard categories	Hazard statements
Acute toxicity, category 4, oral	H302

2.2 Label elements

Labelling in accordance with 29 CFR 1910.1200 (OSHA HCS)

Hazard pictograms



Signal word: Warning

Hazard statements	
H302	Harmful if swallowed.

Precautionary statements	
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P312	Call a POISON CENTER/doctor if you feel unwell.

Hazard(s) not otherwise classified (HNOC)

none

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients Classification according to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Substance name	Concentration	Identifier	Hazard classes and hazard categories
Barium chloride dihydrate	5 - 10%	CAS No.: 10326-27-9	Acute Tox. 3 - H301 Acute Tox. 4 - H332

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Do not leave affected person unattended. Take off immediately all contaminated clothing.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. When in doubt or if symptoms are observed, get medical advice.

In case of skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. When in doubt or if symptoms are observed, get medical advice.

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. When in doubt or if symptoms are observed, get medical advice.

In case of ingestion

Never give anything by mouth to an unconscious person or a person with cramps. Rinse mouth thoroughly with water. Spit out all liquid. Get medical help.

Self-protection of the first aider

First aider: Pay attention to self-protection! Wear personal protection equipment (refer to section 8). Flammable liquid and vapor.

4.2 Most important symptoms/effects, acute and delayed

After inhalation: No known symptoms to date. After skin contact: No known symptoms to date. After eye contact: No known symptoms to date. After ingestion: Nausea. Vomiting. Diarrhea. Absorptive effect possible. After resorption: Dizziness. Cardiovascular disorder. Muscle weakness. Kidney damage.

4.3 Indication of any immediate medical attention and special treatment needed

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours. After inhalation: Treat symptomatically. After skin contact: Rinse skin with water [or shower]. Treat symptomatically. Following ingestion: Gastroscopy. Monitoring of cardiovascular parameters, renal parameters, as well as neurological status and potassium levels and acidosis parameters. Treat symptomatically.

SECTION 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media

ABC-powder
Carbon dioxide (CO_2).
Dry sand
Nitrogen

Extinguishing media which must not be used for safety reasons

Water spray.
Full water jet

5.2 Specific hazards arising from the chemical

The product itself does not burn.
Substance is non-flammable. Adapt fire and explosion protection measures to the combustible substances in the area.
Fire may produce irritating, corrosive and/or toxic gases.
In case of fire may be liberated:
Pyrolysis products, toxic

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.
Co-ordinate fire-fighting measures to the fire surroundings.
In case of fire: Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Remove victim out of the danger area. First Aid, decontamination, treatment of symptoms. For emergency responders: Wear a self-contained breathing apparatus and chemical protective clothing. Product is non-flammable. Adapt fire and explosion protection measures to the combustible substances in the area. In case of major fire and release of large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

6.2 Environmental precautions

No special environmental measures are necessary.

6.3 Methods and material for containment and cleaning up

Large spills: Dike or dam to contain for later disposal. Take up mechanically, placing in appropriate containers for disposal. Take precautionary measures against static discharges. Small spills: Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Dispose according to legislation.

6.4 Reference to other sections

Personal protection equipment (PPE): see section 8 Disposal information: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling
Use personal protective equipment as required.
Avoid substance contact.
Use extractor hood (laboratory).
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Use of small quantities within laboratory settings, including material transfers and equipment cleaning.
Measures to prevent fire, aerosol and dust generation
Usual measures for fire prevention.
Measures required to protect the environment
Do not empty into drains.
Collect spillage.
Cover drains.

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: no data available
Store in a well-ventilated place. Keep container tightly closed. Packaging materials: High density polyethylene (HDPE) Glass
Unsuitable container/equipment material: Metal container

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Engineering controls

Appropriate engineering controls
Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment (PPE)
Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

Eye/face protection
Eye glasses with side protection

Skin protection
Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

Respiratory protection
Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Additional information
Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls
no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Color:	no data available
Odor:	no data available

Safety relevant basic data

pH:	no data available
Melting point/freezing point:	no data available
Initial boiling point and boiling range:	no data available
Flash point:	no data available
Flammability:	Not applicable
Lower and upper explosion limit	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
Vapor pressure:	no data available
Relative vapour density:	no data available
Density and/or relative density	
Density:	no data available
Solubility(ies)	
Water solubility:	no data available
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	Not applicable
Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
Particle characteristics:	does not apply to liquids

9.2 Other information

Evaporation rate:	no data available
Explosive properties:	no data available
Oxidising properties:	Not applicable
Bulk density:	no data available
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials:

no data available

10.6 Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity:

Harmful if swallowed.

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Irritant and corrosive effects:
Primary irritation to the skin:
Not applicable

Irritation to eyes:
Not applicable

Irritation to respiratory tract:
Not applicable

Respiratory or skin sensitization
In case of skin contact: not sensitizing
In case of inhalation: not sensitizing

STOT-single exposure
Not applicable

STOT-repeated exposure
Not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Carcinogenicity
No indication of human carcinogenicity.

IARC Monographs on the Identification of Carcinogenic Hazards to Humans:

Not listed

Occupational Safety and Health Administration (OSHA, 29 CFR Part 1910.1003):

Not listed

National Toxicology Program (NTP) Report:

Not listed

Germ cell mutagenicity
No indications of human germ cell mutagenicity exist.

Reproductive toxicity
No indications of human reproductive toxicity exist.

Aspiration hazard
Not applicable

Other adverse effects
no data available

Additional information
no data available

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity:
no data available

Daphnia toxicity:
no data available

Algae toxicity:
no data available

Bacteria toxicity:
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
Partition coefficient: n-octanol/water: no data available

12.4 Mobility in soil:
no data available

12.5 Results of PBT/vPvB assessment
Not applicable

12.6 Endocrine disrupting properties
This product does not contain a substance that has endocrine disrupting properties with respect to the environment.

12.7 Other adverse effects
no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: no data available

Appropriate disposal / Package

Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

Additional information

none

No further relevant information available.

SECTION 14: Transport information

Land transport (DOT)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	not assigned
Transport hazard class(es):	none
Packing group:	not assigned
Environmental hazards:	none
Special precautions for user:	none

Sea transport (IMDG)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	not assigned
Transport hazard class(es):	none
Packing group:	not assigned
Environmental hazards:	none
Special precautions for user:	none
Maritime transport in bulk according to IMO instruments	not relevant

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	not assigned
Transport hazard class(es):	none
Packing group:	not assigned
Special precautions for user:	none

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Toxic Substances Control Act (TSCA)

- Water - CAS No.: 7732-18-5

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Does not contain listed substances.

SARA 313 Components
Does not contain listed substances.

US State Regulations

Massachusetts Right To Know Components
Does not contain listed substances.

Pennsylvania Right To Know Components
Does not contain listed substances.

New Jersey Right To Know Components
Does not contain listed substances.

California Prop. 65 Components

Does not contain listed substances.

SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygiensts
DOT - Department of Transportation
IARC - International Agency for Research on Cancer
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
STV - Short Term Value
SVHC - Substances of Very High Concern
TDG - Transport of Dangerous Goods
TLV - Threshold Limit Value
vPvB - very Persistent, very Bioaccumulative

Key literature references and sources for data

This Safety Data Sheet has been prepared based on information available for public as TOXNET information, European Chemicals Agency (ECHA) substance dossier, papers from international cancer research institutes (IARC Monographs), U.S. National Toxicology Program data, U.S. Agency for Toxic Substances and Disease Control (ATSDR), PubChem websites and SDS from our raw material manufacturers.

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17.02.2025	6.1	17.02.2025

Additional information

Indication of changes	general update If you need an explanation of the change, contact the supplier (SDS@avantorsciences.com).

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guidance. The information in this document is based on the present state knowledge and is applicable to the product with regard to appropriate safty precautions. It does not represent any guarantee of the properties of the product. VWR International and his Affiliates shall not be held liable for any damage resulting from handling.