

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/24/2020

Reviewed on 08/24/2020

## 1 Identification

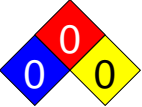
- **Product identifier**
- **Trade name:** Barium Chloride 10 gpL  
With Indicator
- **Article number:** DOW723
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
The product is not classified, according to the Globally Harmonized System (GHS).

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  - **Label elements**
  - **GHS label elements** Not Applicable
  - **Hazard pictograms** Not Applicable
  - **Signal word** Not Applicable
  - **Hazard statements** Not Applicable
  - **Precautionary statements**  
If swallowed: Call a poison center/doctor if you feel unwell.  
If on skin: Wash with plenty of water.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Store in a closed container.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
- 

Health = 0

Fire = 0

Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**
- |            |   |                |
|------------|---|----------------|
| HEALTH     | 0 | Health = 0     |
| FIRE       | 0 | Fire = 0       |
| REACTIVITY | 0 | Reactivity = 0 |
- **Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

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### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Not Applicable

· **Table of Nonhazardous Ingredients**

CAS: 7732-18-5	Water	98.828%
CAS: 10326-27-9	Barium Chloride Dihydrate	0.993%
CAS: 1310-73-2	Sodium Hydroxide	0.0996%
CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	0.0708%
CAS: 67-56-1	Methanol (Methyl Alcohol)	0.00394%
CAS: 67-63-0	Isopropanol	0.00391%
CAS: 77-09-8	Phenolphthalein	0.000997%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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### · Protective Action Criteria for Chemicals

#### · PAC-1:

CAS: 10326-27-9	Barium Chloride Dihydrate	2.7 mg/m <sup>3</sup>
CAS: 1310-73-2	Sodium Hydroxide	0.5 mg/m <sup>3</sup>
CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	1,800 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	530 ppm
CAS: 67-63-0	Isopropanol	400 ppm
CAS: 77-09-8	Phenolphthalein	4 mg/m <sup>3</sup>

#### · PAC-2:

CAS: 10326-27-9	Barium Chloride Dihydrate	330 mg/m <sup>3</sup>
CAS: 1310-73-2	Sodium Hydroxide	5 mg/m <sup>3</sup>
CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	3300* ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	2,100 ppm
CAS: 67-63-0	Isopropanol	2000* ppm
CAS: 77-09-8	Phenolphthalein	44 mg/m <sup>3</sup>

#### · PAC-3:

CAS: 10326-27-9	Barium Chloride Dihydrate	2,000 mg/m <sup>3</sup>
CAS: 1310-73-2	Sodium Hydroxide	50 mg/m <sup>3</sup>
CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	15000* ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	7200* ppm
CAS: 67-63-0	Isopropanol	12000** ppm
CAS: 77-09-8	Phenolphthalein	260 mg/m <sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.
- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

<b>Form:</b>	Liquid
<b>Color:</b>	Pale pink
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

· **pH-value at 20 °C (68 °F):** >10

#### · Change in condition

<b>Melting point/Melting range:</b>	0 °C (32 °F)
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

#### · Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

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· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	1.02178 g/cm <sup>3</sup> (8.52675 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.1 %
<b>Water:</b>	98.8 %
<b>VOC content:</b>	0.08 %
	0.8 g/l / 0.01 lb/gal
<b>Solids content:</b>	1.1 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>ATE (Acute Toxicity Estimate)</b>		
Oral	LD50	10,073 mg/kg
Dermal	LD50	5,137 mg/kg (mouse)
<b>CAS: 10326-27-9 Barium Chloride Dihydrate</b>		
Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	50 mg/kg (ATE)
Inhalative	LC50/4h	1.5 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to internally approved calculation methods for preparations:  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	1
CAS: 67-63-0	Isopropanol	3
CAS: 77-09-8	Phenolphthalein	2B

- **NTP (National Toxicology Program)**

CAS: 77-09-8	Phenolphthalein	R
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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, IMDG, IATA</b>	Not regulated
· <b>UN proper shipping name</b>	
· <b>DOT, IATA</b>	Not regulated

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<b>· IMDG</b>	Not Regulated Not regulated
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<b>· Transport hazard class(es)</b>	
<b>· DOT, ADN, IMDG, IATA</b>	
<b>· Class</b>	Not regulated

<b>· Packing group</b>	
<b>· DOT, IMDG, IATA</b>	Not regulated

<b>· Environmental hazards:</b>	Not applicable.
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<b>· Special precautions for user</b>	Not applicable.
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<b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
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<b>· UN "Model Regulation":</b>	Not regulated
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## 15 Regulatory information

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

**· Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

**· Section 313 (Specific toxic chemical listings):**

CAS: 10326-27-9	Barium Chloride Dihydrate
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CAS: 67-56-1	Methanol (Methyl Alcohol)
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CAS: 67-63-0	Isopropanol
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CAS: 77-09-8	Phenolphthalein
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**· TSCA (Toxic Substances Control Act):**

Water	ACTIVE
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Sodium Hydroxide	ACTIVE
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Ethyl Alcohol, Absolute 200 Proof	ACTIVE
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Methanol (Methyl Alcohol)	ACTIVE
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Isopropanol	ACTIVE
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Phenolphthalein	ACTIVE
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**· Hazardous Air Pollutants**

CAS: 67-56-1	Methanol (Methyl Alcohol)
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**· Proposition 65**

**· Chemicals known to cause cancer:**

CAS: 77-09-8	Phenolphthalein
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**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof
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CAS: 67-56-1	Methanol (Methyl Alcohol)
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 10326-27-9	Barium Chloride Dihydrate	D, CBD(inh), NL(oral)
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· **TLV (Threshold Limit Value established by ACGIH)**

CAS: 10326-27-9	Barium Chloride Dihydrate	A4
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CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	A3
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CAS: 67-63-0	Isopropanol	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Not Applicable

· **Hazard pictograms** Not Applicable

· **Signal word** Not Applicable

· **Hazard statements** Not Applicable

· **Precautionary statements**

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Store in a closed container.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision**

Revision 0.0, 08-24-2020: Creation date for SDS. STN

08/24/2020 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

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*PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit*

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