

### Safety Data Sheet acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

## 1 Identification

- **Product identifier**
- **Trade name: Alkalinity P (BaCl<sub>2</sub>)**
- **Catalogue number:** 00515111, 515110BT, 00515119BT
- **Application of the substance / the mixture:** Reagent for water analysis
- **Manufacturer/Supplier:**  
Tintometer Inc.  
6456 Parkland Drive  
Sarasota, FL 34243  
USA  
phone: (941) 756-6410  
fax: (941) 727-9654  
www.lovibond.us  
Made in Germany
- **Emergency telephone number:** + 1 866 928 0789 (English, French, Spanish)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Toxicity - Oral 3      H301 Toxic if swallowed.



GHS07

Acute Toxicity - Inhalation 4      H332 Harmful if inhaled.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Hazard Communication Standard (HCS).

- **Hazard pictograms**



GHS06

- **Signal word** Danger

- **Hazard-determining components of labeling:**

barium chloride dihydrate

- **Hazard statements**

H301 Toxic if swallowed.

H332 Harmful if inhaled.

- **Precautionary statements**

P261      Avoid breathing dust.

P301+P310 If swallowed: Immediately call a poison center/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312      Call a poison center/doctor if you feel unwell.

P405      Store locked up.

- **Other hazards** No further relevant information available.

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 1)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of organic and inorganic compounds
- **Composition and Information on Ingredients:**  
Percent ranges are used due to the confidential product information.

CAS: 10326-27-9 EINECS: 233-788-1 Index number: 056-004-00-8 RTECS: CQ 8751000	barium chloride dihydrate ☠ Acute Toxicity - Oral 3, H301; ⚠ Acute Toxicity - Inhalation 4, H332	70–80%
CAS: 9004-34-6 EINECS: 232-674-9 RTECS: FJ5691460	cellulose	20–30%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:** Supply fresh air or oxygen; call for doctor.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes (at least 15 min) under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink 1-2 glasses of water.  
Seek medical treatment.
- **Most important symptoms and effects, both acute and delayed**  
irritations  
after inhalation:  
mucous membrane irritation  
coughing  
breathing difficulty  
resorption  
after swallowing:  
sickness  
vomiting  
dizziness  
pain  
diarrhoea  
after resorption:  
CNS disorders  
cardiovascular disorders  
respiratory paralysis
- **Danger:**  
Danger of circulatory collapse.  
Danger of disturbed cardiac rhythm.
- **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**  
The product is not combustible.  
Formation of toxic gases is possible during heating or in case of fire.  
Hydrogen chloride (HCl)

(Contd. on page 3)

— US —

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Ambient fire may liberate hazardous vapours.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Use respiratory protective device against the effects of fume/dust/aerosol.
- **Advice for emergency responders:** Protective equipment: see section 8
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Pick up mechanically.  
Dispose contaminated material as waste according to section 13.
- **Reference to other sections**  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling**
- **Advice on safe handling:** No special precautions are necessary if used correctly.
- **Hygiene measures:**  
Do not inhale dust / smoke / mist.  
Do not get in eyes, on skin, or on clothing.  
Take off immediately all contaminated clothing.  
Wash hands before breaks and at the end of work.  
Do not eat, drink or smoke when using this product.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** see chapter 10
- **Further information about storage conditions:**  
Store locked up or with access restricted to technical experts or their assistants.  
Ensure that persons do not handle until all safety precautions have been read and understood.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.  
Protect from exposure to the light.  
Protect from humidity and water.
- **Recommended storage temperature:** 20°C +/- 5°C (approx. 68°F)
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 10326-27-9 barium chloride dihydrate

PEL (USA)	Long-term value: 0.5 mg/m <sup>3</sup> as Ba
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REL (USA)	Long-term value: 0.5 mg/m <sup>3</sup> as Ba
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(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 3)

TLV (USA)	Long-term value: 0.5 mg/m <sup>3</sup> as Ba, A4
EL (Canada)	Long-term value: 0.5 mg/m <sup>3</sup> as Ba
<b>CAS: 9004-34-6 cellulose</b>	
PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> **total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> **total dust **respirable fraction
TLV (USA)	Long-term value: 10 mg/m <sup>3</sup>
EL (Canada)	Long-term value: 10* 3** mg/m <sup>3</sup> **total dust, **respirable fraction
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> paper fibre, total dust

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Engineering measures:**  
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.
- **Personal protective equipment:**  
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
- **Breathing equipment:** Use respiratory protective device against the effects of fume/dust/aerosol.
- **Recommended filter device for short term use:** Filter P3
- **Protection of hands:**  
Preventive skin protection by use of skin-protecting agents is recommended.  
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**  
Nitrile rubber, NBR  
Recommended thickness of the material: ≥ 0.11 mm
- **Penetration time of glove material**  
Value for the permeation: Level ≤ 1 (10 min)  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**  
Safety glasses  
use against the effects of fumes / dust
- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment:**  
Do not allow product to reach sewage system or any water course.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **Appearance:**
- **Form / Physical state:** Tablets
- **Color:** Beige
- **Odor:** Odorless
- **Odor threshold:** Not applicable.
- **pH-value (9.8 g/l) at 20°C (68°F):** 5.7
- **Melting point/freezing point:** Not determined.
- **Initial boiling point and boiling range:** Not determined.
- **Flash point:** Not applicable.
- **Flammability (solid, gas):** The product is not combustible.
- **Auto igniting:** Not applicable (solid).
- **Decomposition temperature:** > 100°C (> 212°F) (CAS 10325-27-9)
- **Auto-ignition temperature:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Flammability or explosive limits:**
- **Lower:** Not applicable.
- **Upper:** Not applicable.

(Contd. on page 5)

US

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 4)

· <b>Oxidizing properties:</b>	none
· <b>Vapor Pressure:</b>	Not applicable.
· <b>Density:</b>	Not determined.
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	Not applicable.
· <b>Evaporation rate:</b>	Not applicable.
· <b>Solubility(ies)</b>	
· <b>Water:</b>	Partly soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not applicable.
· <b>Viscosity:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable (solid).
· <b>Other information</b>	
· <b>Solids content:</b>	100 %
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %

## 10 Stability and reactivity

- **Reactivity** see section "Possibility of hazardous reactions"
- **Chemical stability**  
Stable at ambient temperature (room temperature).  
Loss of constitutional water on heating.
- **Possibility of hazardous reactions**  
Reacts with reducing agents.  
Reacts with acids.  
Reacts with strong oxidizing agents.  
furan-2-percarbonic acid  
---> Danger of explosion.
- **Conditions to avoid** To avoid thermal decomposition do not overheat.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Chlorine compounds  
In case of fire: see section 5.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**  
Classification according to calculation procedure.  
Toxic if swallowed.  
Harmful if inhaled.

### · Acute toxicity estimate (ATE<sub>(MIX)</sub>) - Calculation method:

Oral	GHS ATE <sub>(MIX)</sub>	133 mg/kg (.)
Inhalative	GHS ATE <sub>(MIX)</sub>	2 mg/l/4h (dust)

### · LD/LC50 values that are relevant for classification:

#### CAS: 10326-27-9 barium chloride dihydrate

Oral	LD50	100 mg/kg (ATE) (for calculation) 118 mg/kg (rat) (anhydrous - IUCLID)
Inhalative	LC50/4h	1.5 mg/l (ATE)

#### CAS: 9004-34-6 cellulose

Oral	LD50.	>5000 mg/kg (rat)
Dermal	LD50.	>2000 mg/kg (rabbit) (RTECS, limit test)
Inhalative	LC50/4h	>5.8 mg/l /4h (rat)

(Contd. on page 6)

US

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 5)

- **Primary irritant effect:**

- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Information on components:**  
CAS 10326-27-9: chronic: dermatitis

<b>CAS: 9004-34-6 cellulose</b>		
Irritation of skin	OECD 404	(rabbit: no irritation)
Irritation of eyes	OECD 492	(rabbit: no irritation)

- **Sensitization:** Based on available data, the classification criteria are not met.

- **Information on components:**

<b>CAS: 9004-34-6 cellulose</b>		
Sensitization	OECD 406	(guinea pig: negative)

- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Other information:** see section 8 / 15

- **Synergistic Products:** None

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

- **Additional toxicological information:**

<b>CAS: 10326-27-9 barium chloride dihydrate</b>		
.	(source: GESTIS)	
Main toxic effects:		
acute: Irritation of the mucous membranes, gastrointestinal complaints, hypokalemia, cardiac arrhythmia, muscle weakness, kidney damage.		
chronic: after repeated oral intake: kidney damage in animal experiments		

- **Other information**

This substance / mixture should be handled with particular care.

Other dangerous properties can not be excluded.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

<b>CAS: 10326-27-9 barium chloride dihydrate</b>		
LC50	870 mg/l/48h (gold orfe)	
	IUCLID	
EC50	21.9 mg/l/48h (Daphnia magna)	
	(IUCLID)	

- **Other information:**

Toxic for fish:

Ba &gt; 158 mg/l

- **Persistence and degradability** No further relevant information available.

(Contd. on page 7)

— US —

# Safety Data Sheet

acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 6)

- **Bioaccumulative potential**  
Pow = n-octanol/wasser partition coefficient  
log Pow < 1 = Does not accumulate in organisms.

**CAS: 10326-27-9 barium chloride dihydrate**



log Pow 0.85 (.)

- **Mobility in soil** No further relevant information available.
- **Other adverse effects** Avoid transfer into the environment.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Hand over to hazardous waste disposers.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>	UN1564
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	Barium compounds, n.o.s. (barium chloride dihydrate) BARIUM COMPOUND, N.O.S. (barium chloride dihydrate)
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul> <div style="text-align: center;">  </div>	6.1 Toxic substances 6.1
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul> <div style="text-align: center;">  </div>	6.1 Toxic substances 6.1
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	Warning: Toxic substances 60 F-A,S-A A
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> </ul>	5 kg

(Contd. on page 8)

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 7)

## · Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

### \*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

## · TSCA (Toxic Substances Control Act):

CAS 10326-27-9 is not on the TSCA Inventory listed, because it is a hydrate.

It is listed on the CAS 10361-37-2 number for the anhydrous form.

All components have the value ACTIVE.

## · Hazardous Air Pollutants

None of the ingredients is listed.

## · Proposition 65

## · Chemicals known to cause cancer:

None of the ingredients is listed.

## · 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.

## · Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

## · New Jersey Right-to-Know List:

CAS: 9004-34-6 | cellulose

## · New Jersey Special Hazardous Substance List:

None of the ingredients is listed.

## · Pennsylvania Right-to-Know List:

CAS: 9004-34-6 | cellulose

## · Pennsylvania Special Hazardous Substance List:

None of the ingredients is listed.

## · EPA (Environmental Protection Agency)

CAS: 10326-27-9 | barium chloride dihydrate

D, CBD(inh), NL(oral)

## · NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

## · Information about limitation of use:

Observe national regulations where applicable:

Employment restrictions concerning young persons must be observed.

## · 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.

## · Relevant phrases

H301 Toxic if swallowed.

H332 Harmful if inhaled.

(Contd. on page 9)

US



# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 04/17/2024

Reviewed on 04/17/2024

Trade name: Alkalinity P (BaCl<sub>2</sub>)

(Contd. of page 8)

· **Version number / date of revision:** 31 / 04/17/2024· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development  
 STOT: specific target organ toxicity  
 SE: single exposure  
 RE: repeated exposure  
 EC50: half maximal effective concentration  
 IC50: half maximal inhibitory concentration  
 NOEL or NOEC: No Observed Effect Level or Concentration  
 ACGIH® - American Conference of Governmental Industrial Hygienists  
 •A1 - Confirmed human carcinogen  
 •A2 - Suspected human carcinogen  
 •A3 - Confirmed animal carcinogen with unknown relevance to humans  
 •A4 - Not classifiable as a human carcinogen  
 •A5 - Not suspected as a human carcinogen  
 IARC - International Agency for Research on Cancer  
 •Group 1 - Carcinogenic to humans  
 •Group 2A - Probably carcinogenic to humans  
 •Group 2B - Possibly carcinogenic to humans  
 •Group 3 - Not classifiable as to carcinogenicity to humans  
 •Group 4 - Probably not carcinogenic to humans  
 NTP - National Toxicology Program, U.S. Department of Health and Human Services  
 •Group K - Known to be Human Carcinogens  
 •Group R - Reasonably Anticipated to be Human Carcinogens  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 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)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit  
 Acute Toxicity - Oral 3: Acute toxicity – Category 3  
 Acute Toxicity - Inhalation 4: Acute toxicity – Category 4

· **Sources**

Data arise from safety data sheets, reference works and literature.  
 IUCLID (International Uniform Chemical Information Database)  
 RTECS (Registry of Toxic Effects of Chemical Substances )  
 GESTIS- Stoffdatenbank (Substance Database, Germany)

· **\* Data compared to the previous version altered.**