

## Section 1

## Chemical Product and Company Identification

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**Innovating Science®** by Aldon Corporation  
 "cutting edge science for the classroom"

221 Rochester Street  
 Avon, NY 14414-9409  
 (585) 226-6177

**CHEMTREC 24 Hour Emergency**  
**Phone Number (800) 424-9300**  
 For laboratory use only.  
 Not for drug, food or household use.

<b>Product</b>	<b>CALCIUM CHLORIDE, 0.05 MOLAR SOLUTION, STERILE</b>
<b>Synonyms</b>	Calcium Chloride, Aqueous Solution

## Section 2

## Hazards Identification

**Signal word:** WARNING

**Pictograms:** No symbol required

**Target organs:** None known

**GHS Classification:**

Eye irritation (Category 2B)

**GHS Label information: Hazard statement:**

H320: Causes eye irritation.

**Precautionary statement:**

P264: Wash hands thoroughly after handling.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical attention.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## Section 3

## Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Water	7732-18-5	99.45%	231-791-2
Calcium chloride	10043-52-4	0.55%	233-140-8

## Section 4

## First Aid Measures

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY CAUSE IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5

## Fire Fighting Measures

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## Section 6

## Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.



**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area away from incompatible substances.

## Section 8

## Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Particulates not otherwise classified	None established	TWA: 15 mg/m <sup>3</sup> total dust	None established

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9

## Physical &amp; Chemical Properties

**Appearance:** Clear, colorless liquid.

**Odor:** No odor.

**Odor threshold:** Data not available.

**pH:** Data not available.

**Melting / Freezing point:** Approximately 0°C (32°F) (water)

**Boiling point:** Approximately 100°C (212°F) (water)

**Flash point:** Data not available

**Evaporation rate (Water = 1):** <1

**Flammability (solid/gas):** Data not available.

**Explosion limits: Lower / Upper:** Data not available

**Vapor pressure (mm Hg):** 14 (water)

**Vapor density (Air = 1):** 0.7 (water)

**Relative density (Specific gravity):** Approximately 1.0 (water)

**Solubility(ies):** Complete in water.

**Partition coefficient:** Data not available

**Auto-ignition temperature:** Data not available

**Decomposition temperature:** Data not available.

**Viscosity:** Data not available.

**Molecular formula:** Mixture

**Molecular weight:** Mixture

## Section 10

## Stability &amp; Reactivity

**Chemical stability:** Stable

**Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperatures which cause evaporation.

**Incompatible materials:** Avoid contact with sulfuric acid. Flammable hydrogen may be generated from contact with metals such as zinc and sodium.

**Hazardous decomposition products:** None known.

## Section 11

## Toxicological Information

**Acute toxicity:** Oral-rat LD50: 2100 mg/kg ; Dermal-rabbit LD50: >5000 mg/kg [Calcium chloride]

**Skin corrosion/irritation:** Data not available

**Serious eye damage/irritation:** Data not available

**Respiratory or skin sensitization:** Data not available.

**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** Data not available

**STOT-repeated exposure:** Data not available

**Aspiration hazard:** Data not available

**Potential health effects:**

Inhalation: Dust may cause irritation to the upper respiratory tract (nose and throat).

Ingestion: Low toxicity if swallowed. However, large amounts may result in gastrointestinal irritation or ulceration.

Skin: Contact with skin may cause irritation and/or defatting on prolonged contact.

Eyes: Contact with eyes may cause severe irritation and/or corneal injury.

**Signs and symptoms of exposure:** See Potential health effects above.

**Additional information:** RTECS #: EV9810000 [Calcium chloride]

## Section 12

## Ecological Information

**Toxicity to fish:** Lepomis macrochirus (bluegill) LC50: 8,350-10,650 mg/L [Calcium chloride]

**Toxicity to daphnia and other aquatic invertebrates:** Daphnia magna (water flea), LC50: 759-3,005 mg/L [Calcium chloride]

**Toxicity to algae:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13

## Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14

## Transport Information (US DOT / CANADA TDG)

**UN/NA number:** Not applicable

**Shipping name:** Not Regulated

**Hazard class:** Not applicable

**Packing group:** Not applicable

**Reportable Quantity:** No

**Marine pollutant:** No

**Exceptions:** Not applicable

**2012 ERG Guide #** Not applicable

## Section 15

## Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERCLA (RQ)	RCRA code	DSL	NDSL
Calcium chloride	Listed	Not listed	Not listed	Listed	Not listed

## Section 16

## Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.



## Section 1

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**Phone Number (800) 424-9300**  
 For laboratory use only.  
 Not for drug, food or household use.

<b>Product</b>	<b>AMPICILLIN, SODIUM SALT</b>
<b>Synonyms</b>	D(-)-alpha-Aminobenzilpenicillin Sodium Salt

## Section 2 Hazards Identification

Signal word: DANGER

Pictograms: GHS08

Target organs: None known



## GHS Classification:

Skin sensitization (Category 1)

Respiratory sensitization (Category 1)

## GHS Label information: Hazard statement:

H317: May cause an allergic skin reaction.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## Precautionary statement:

P261: Avoid breathing dust.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P333+P313: If skin irritation or rash occurs: Get medical attention.

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

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P362+P364: Take off contaminated clothing and wash it before reuse.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Ampicillin, sodium salt	69-52-3	≥98%	200-708-1

## Section 4 First Aid Measures

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## Section 6 Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.



**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8

## Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Ampicillin	Not established	Not established	Not established

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9

## Physical &amp; Chemical Properties

<b>Appearance:</b> Solid. White powder	<b>Evaporation rate ( = 1):</b> Data not available	<b>Partition coefficient:</b> Data not available
<b>Odor:</b> No odor.	<b>Flammability (solid/gas):</b> Data not available	<b>Auto-ignition temperature:</b> Data not available
<b>Odor threshold:</b> Data not available.	<b>Explosion limits: Lower / Upper:</b> Data not available	<b>Decomposition temperature:</b> Data not available
<b>pH:</b> Data not available.	<b>Vapor pressure (mm Hg):</b> Data not available	<b>Viscosity:</b> Data not available
<b>Melting / Freezing point:</b> 215°C (419°F)	<b>Vapor density (Air = 1):</b> Data not available	<b>Molecular formula:</b> C <sub>16</sub> H <sub>18</sub> N <sub>3</sub> NaO <sub>4</sub> S
<b>Boiling point:</b> Data not available	<b>Relative density (Specific gravity):</b> Data not available	<b>Molecular weight:</b> 371.39
<b>Flash point:</b> Data not available	<b>Solubility(ies):</b> Soluble in water	

## Section 10

## Stability &amp; Reactivity

**Chemical stability:** Stable      **Hazardous polymerization:** Will not occur.  
**Conditions to avoid:** Excessive temperatures, heat, and moisture.  
**Incompatible materials:** Strong oxidizers.  
**Hazardous decomposition products:** Oxides of carbon, nitrogen and sulfur.

## Section 11

## Toxicological Information

**Acute toxicity:** Oral-rat LD50: >5314 g/kg  
**Skin corrosion/irritation:** Data not available  
**Serious eye damage/irritation:** Data not available  
**Respiratory or skin sensitization:** Data not available  
**Germ cell mutagenicity:** Data not available  
**Carcinogenicity:** Data not available  
**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
**IARC classified:** Group 3: Not classifiable as to its carcinogenicity to humans.  
**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  
**Reproductive toxicity:** Data not available  
**STOT-single exposure:** The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.  
**STOT-repeated exposure:** Data not available  
**Aspiration hazard:** Data not available  
**Potential health effects:**  
**Inhalation:** Inhalation may cause irritation and hypersensitive individuals may experience an allergic reaction.  
**Ingestion:** Chronic ingestion or excessive dosage may cause allergic reaction and gastrointestinal irritation with nausea, vomiting and diarrhea.  
**Skin:** Contact may cause irritat ion, dermatitis and hypersensitive individuals may experience an allergic reaction.  
**Eyes:** Contact may cause irritation.  
**Signs and symptoms of exposure:** Ingestion may also result in glossitis, stomatitis, enterocolitis and pseudomembranous colitis. Persons allergic to penicillins should not be allowed to contact Ampicillin, sodium salt. Exercise appropriate procedures to minimize potential hazards.  
**Additional information:** RTECS #: XH8400000

## Section 12

## Ecological Information

**Toxicity to fish:** No data available  
**Toxicity to daphnia and other aquatic invertebrates:** No data available  
**Toxicity to algae:** No data available  
**Persistence and degradability:** No data available      **Bioaccumulative potential:** No data available  
**Mobility in soil:** No data available      **PBT and vPvB assessment:** No data available  
**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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## Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14

## Transport Information (US DOT / CANADA TDG)

**UNNA number:** Not applicable      **Shipping name:** Not Regulated  
**Hazard class:** Not applicable      **Packing group:** Not applicable      **Reportable Quantity:** No      **Marine pollutant:** No  
**Exceptions:** Not applicable      **2012 ERG Guide #** Not applicable

## Section 15

## Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERCLA (RQ)	RCRA code	DSL	NDSL
Ampicillin	Listed	Not listed	Not listed	Not listed	Not listed

## Section 16

## Other Information

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