

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/21/2017

Reviewed on 07/21/2017

## 1 Identification

- **Product identifier**
- **Trade name:** Synthetic Sea Water  
Stock #1 ASTM D665
- **Article number:** SPE091S1
- **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).

- **Label elements**
- **GHS label elements** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

|                 |                  |      |
|-----------------|------------------|------|
| CAS: 10043-52-4 | Calcium Chloride | 5.8% |
|-----------------|------------------|------|

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## Table of Nonhazardous Ingredients

|                 |                                |       |
|-----------------|--------------------------------|-------|
| CAS: 7791-18-6  | Magnesium Chloride Hexahydrate | 55.5% |
| CAS: 10025-70-4 | Strontium Chloride Hexahydrate | 0.2%  |
| CAS: 7732-18-5  | Water                          | 38.5% |

## 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:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **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.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.
- **Protective Action Criteria for Chemicals**

### · PAC-1:

|                 |                                |          |
|-----------------|--------------------------------|----------|
| CAS: 7791-18-6  | Magnesium Chloride Hexahydrate | 34 mg/m3 |
| CAS: 10043-52-4 | Calcium Chloride               | 12 mg/m3 |

### · PAC-2:

|                 |                                |           |
|-----------------|--------------------------------|-----------|
| CAS: 7791-18-6  | Magnesium Chloride Hexahydrate | 370 mg/m3 |
| CAS: 10043-52-4 | Calcium Chloride               | 130 mg/m3 |

### · PAC-3:

|                |                                |             |
|----------------|--------------------------------|-------------|
| CAS: 7791-18-6 | Magnesium Chloride Hexahydrate | 1,600 mg/m3 |
|----------------|--------------------------------|-------------|

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CAS: 10043-52-4 Calcium Chloride

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790 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:** None.
- **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.
- **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:**  
 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

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## 9 Physical and chemical properties

|                                                         |                                               |
|---------------------------------------------------------|-----------------------------------------------|
| · Information on basic physical and chemical properties |                                               |
| · General Information                                   |                                               |
| · Appearance:                                           |                                               |
| Form:                                                   | Liquid                                        |
| Color:                                                  | Clear                                         |
| · Odor:                                                 | Odorless                                      |
| · Odor threshold:                                       | Not determined.                               |
| · pH-value:                                             | Not determined.                               |
| · Change in condition                                   |                                               |
| Melting point/Melting range:                            | Undetermined.                                 |
| Boiling point/Boiling range:                            | 100 °C (212 °F)                               |
| · Flash point:                                          | Not applicable.                               |
| · Flammability (solid, gaseous):                        | Not applicable.                               |
| · Ignition temperature:                                 |                                               |
| Decomposition temperature:                              | Not determined.                               |
| · Auto igniting:                                        | Product is not selfigniting.                  |
| · Danger of explosion:                                  | Product does not present an explosion hazard. |
| · Explosion limits:                                     |                                               |
| Lower:                                                  | Not determined.                               |
| Upper:                                                  | Not determined.                               |
| · Vapor pressure at 20 °C (68 °F):                      | 23 hPa (17 mm Hg)                             |
| · Density at 20 °C (68 °F):                             | 1.37936 g/cm <sup>3</sup> (11.511 lbs/gal)    |
| · Relative density                                      | Not determined.                               |
| · Vapor density                                         | Not determined.                               |
| · Evaporation rate                                      | Not determined.                               |
| · Solubility in / Miscibility with                      |                                               |
| Water:                                                  | Fully miscible.                               |
| · Partition coefficient (n-octanol/water):              |                                               |
| Not determined.                                         |                                               |
| · Viscosity:                                            |                                               |
| Dynamic:                                                | Not determined.                               |
| Kinematic:                                              | Not determined.                               |
| · Solvent content:                                      |                                               |
| Organic solvents:                                       | 0.0 %                                         |
| Water:                                                  | 38.5 %                                        |
| VOC content:                                            | 0.0 g/l / 0.00 lb/gl                          |
| Solids content:                                         | 61.5 %                                        |
| · Other information                                     | No further relevant information available.    |

## 10 Stability and reactivity

- Reactivity No further relevant information available.

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- **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:**

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

**ATE (Acute Toxicity Estimate)**

Oral LD50 17241 mg/kg (rat)

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

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.

## 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:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **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   |
| · <b>IMDG</b>                                                                    | Not Regulated   |
| · <b>Transport hazard class(es)</b>                                              |                 |
| · <b>DOT, 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. |
| · <b>Special precautions for user</b>                                            | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>                                                  | Not regulated   |

## 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):**

None of the ingredients is listed.

### · **TSCA (Toxic Substances Control Act):**

CAS: 10043-52-4 Calcium Chloride

CAS: 7732-18-5 Water

### · **Proposition 65**

### · **Chemicals known to cause cancer:**

None of the ingredients is listed.

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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.

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **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

· **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, 07-21-2017: Creation date for SDS. STN

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· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit