

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 02/02/2021

Reviewed on 02/02/2021

### 1 Identification

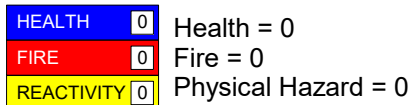
- **Product Identifier**
- **Trade Name: Substitute Ocean Water ASTM D1141-98, stabilized / non-stabilized**
- **Product Number:** 1700-0801; 1700-0802; 1700-0803
- **Relevant identified uses of the substance or mixture and uses advised against:**  
No further relevant information available.
- **Product Description:** Substitute Ocean Water ASTM D1141-98, stabilized / non-stabilized
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
Pickering Laboratories, Inc.  
1280 Space Park Way  
Mountain View, CA 94043  
Phone: (650) 694-6700  
Fax: (650) 968-0749  
www.pickeringlabs.com  
support@pickeringlabs.com
- **Emergency telephone number:**  
Clean Harbors Environmental Services  
1-800-645-8265

### 2 Hazard(s) Identification

- **Classification of the substance or mixture:**  
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**  
This value refers to knowledge of known, established toxicological or ecotoxicological values.  
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



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



- **Hazard(s) not otherwise classified (HNOC):** None

### \* 3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

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**Trade Name: Substitute Ocean Water ASTM D1141-98, stabilized / non-stabilized**

<b>· Dangerous Components:</b>		
CAS: 10043-52-4 RTECS: EV 9800000	Calcium Chloride ⚠ Eye Irrit. 2A, H319	<0.5%
CAS: 7758-02-3	Potassium Bromide ⚠ Eye Irrit. 2A, H319	<0.1%
CAS: 26172-55-4	Methyl Chloro Isothiazolinone ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	<0.1%
CAS: 10043-35-3 RTECS: ED 4550000	Boric Acid ⚠ Repr. 1B, H360 Specific concentration limit: Repr. 1B; H360: C ≥ 5.5 %	<0.01%
CAS: 7681-49-4	Sodium fluoride ⚠ Acute Tox. 3, H301; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	<0.001%

**· Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

### 4 First-Aid Measures

**· Description of first aid measures**

**· General information:** If symptoms persist, call a physician.

**· After inhalation:** Not anticipated under normal use.

**· After skin contact:**

Wash with soap and water.

If skin irritation occurs, consult a doctor.

**· After eye contact:**

If eye irritation occurs, consult a doctor.

Rinse opened eye for several minutes under running water.

**· After swallowing:**

Rinse mouth with water ensuring that rinse is not swallowed. Drink 2 glasses of water to dilute and induce vomiting by touching finger to the back of the victims throat. Get medical assistance immediately.

**· 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:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

**· For safety reasons unsuitable extinguishing agents:** No further relevant information.

**· Special hazards arising from the substance or mixture:** No further relevant information available.

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· **Advice for firefighters**

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

### 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 (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· **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:**

7786-30-3	Magnesium Chloride	11 mg/m <sup>3</sup>
7757-82-6	Sodium Sulphate	9.8 mg/m <sup>3</sup>
26172-55-4	Methyl Chloro Isothiazolinone	0.6 mg/m <sup>3</sup>
10043-52-4	Calcium Chloride	12 mg/m <sup>3</sup>
144-55-8	Sodium Bicarbonate	13 mg/m <sup>3</sup>
7758-02-3	Potassium Bromide	9.2 mg/m <sup>3</sup>
10043-35-3	Boric Acid	6 mg/m <sup>3</sup>
10476-85-4	Strontium chloride	8 mg/m <sup>3</sup>
7681-49-4	Sodium fluoride	17 mg/m <sup>3</sup>

· **PAC-2:**

7786-30-3	Magnesium Chloride	120 mg/m <sup>3</sup>
7757-82-6	Sodium Sulphate	110 mg/m <sup>3</sup>
26172-55-4	Methyl Chloro Isothiazolinone	6.6 mg/m <sup>3</sup>
10043-52-4	Calcium Chloride	130 mg/m <sup>3</sup>
144-55-8	Sodium Bicarbonate	140 mg/m <sup>3</sup>
7758-02-3	Potassium Bromide	100 mg/m <sup>3</sup>
10043-35-3	Boric Acid	23 mg/m <sup>3</sup>
10476-85-4	Strontium chloride	88 mg/m <sup>3</sup>
7681-49-4	Sodium fluoride	90 mg/m <sup>3</sup>

· **PAC-3:**

7786-30-3	Magnesium Chloride	550 mg/m <sup>3</sup>
7757-82-6	Sodium Sulphate	650 mg/m <sup>3</sup>
26172-55-4	Methyl Chloro Isothiazolinone	40 mg/m <sup>3</sup>
10043-52-4	Calcium Chloride	790 mg/m <sup>3</sup>
144-55-8	Sodium Bicarbonate	840 mg/m <sup>3</sup>
7758-02-3	Potassium Bromide	610 mg/m <sup>3</sup>

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10043-35-3	Boric Acid	830 mg/m <sup>3</sup>
10476-85-4	Strontium chloride	360 mg/m <sup>3</sup>
7681-49-4	Sodium fluoride	1,100 mg/m <sup>3</sup>

### 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
  - Avoid contact with skin, eyes and clothing
  - Avoid breathing fumes.
  - Use personal protection equipment as outlined in section 8.
  - Ensure good ventilation/exhaustion at the workplace.
- **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:** Store refrigerated
- **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 section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
  - 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 of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
  - Use adequate exhaust ventilation to prevent inhalation of product vapors.
  - Do not eat or drink while handling product.
  - Immediately remove all soiled and contaminated clothing.
  - The usual precautionary measures for handling chemicals should be followed.
  - Keep away from foodstuffs, beverages and feed.
  - Wash hands before breaks and at the end of work.
- **Breathing equipment:**
  - Respiratory protection is not required unless handling of the material produces nuisance airborne concentrations.
- **Protection of hands:**



Protective gloves

- **Material of gloves:** Latex or vinyl
- **Penetration time of glove material:**
  - The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

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· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Lab coat

· **Limitation and supervision of exposure into the environment:** None

### 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Liquid

**Color:** Colorless

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** 8.2

· **Change in condition**

**Melting point/Melting range:** Not determined.

· **Flash point:** None

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

· **Ignition temperature:** Not applicable

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

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

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapor pressure:** Not determined.

· **Density:** Not determined.

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not determined.

· **Solubility in / Miscibility with:**

**Water:** Aqueous solution

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

· **Solvent content:**

**VOC content:** 0.30 %

· **Other information:** No further relevant information available.

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### 10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **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>26172-55-4 Methyl Chloro Isothiazolinone</b>		
Inhalative	LC50/96 hours	1.6 mg/l (Trout)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:

- **Carcinogenic categories:**
- **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 its carcinogenicity to humans  
Group 4 - Probably not carcinogenic to humans

7681-49-4	Sodium fluoride	3
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- **NTP (National Toxicology Program):**

None of the ingredients are listed.
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- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.
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### 12 Ecological Information

- **Toxicity:**

· <b>Aquatic toxicity:</b>		
<b>26172-55-4 Methyl Chloro Isothiazolinone</b>		
EC50	0.11-0.16 mg/l (Green algae)	
	4.71 mg/l (Daphnia)	

- **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.

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· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

· **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:**

This product may be mixed with a combustible solvent and burned in a chemical incinerator equipped with an after burner and scrubber. This product can also be sent to an EPA approved waste disposal facility. Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport Information

· **UN-Number:**

· **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

· **UN proper shipping name:**

· **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

· **Transport hazard class(es):**

· **DOT, ADR/ADN, ADN, IMDG, IATA**

· **Class:** Non-Regulated Material

· **Packing group:**

· **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material

· **Environmental hazards:** Not applicable.

· **Special precautions for user:** Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

· **UN "Model Regulation":** Non-Regulated Material

### 15 Regulatory Information

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

No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients are listed.

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· **California Proposition 65:**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

7681-49-4 Sodium fluoride

· **New Jersey Special Hazardous Substance List:**

7681-49-4 Sodium fluoride

TE

· **Pennsylvania Right-to-Know List:**

7757-82-6 Sodium Sulphate

7681-49-4 Sodium fluoride

· **Pennsylvania Special Hazardous Substance List:**

7757-82-6 Sodium Sulphate

E

7681-49-4 Sodium fluoride

E

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

10043-35-3 Boric Acid

I (oral)

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

10043-35-3 Boric Acid

A4

7681-49-4 Sodium fluoride

A4

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

None of the ingredients are listed.

· **GHS label elements:** Non-Regulated Material

· **Hazard pictograms:** Non-Regulated Material

· **Signal word:** Non-Regulated Material

· **Hazard statements:** Non-Regulated Material

· **National regulations:**

None of the ingredients are listed.

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

### 16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Date of last revision/ revision number:** 02/02/2021 / 7

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways



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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)  
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 and Health  
OSHA: Occupational Safety & Health Administration  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 2: Acute toxicity – Category 2  
Skin Corr. 1C: Skin corrosion/irritation – Category 1C  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Skin Sens. 1A: Skin sensitisation – Category 1A  
Repr. 1B: Reproductive toxicity – Category 1B  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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

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