

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

1 Identification

- **Product Identifier**
- **Trade Name:** Substitute Ocean Water ASTM D1141-98, stabilized / non-stabilized
- **Other means of identification**
- **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.
- **Information pertaining to particular dangers for man and environment:**
- **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)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None
- **Classification according to (d)(1)(ii) of § 1910.1200**
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

(Contd. on page 2)

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

· **Hazards not otherwise classified**

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

*** 3 Composition/Information on Ingredients**

· **Chemical characterization: Substance**

· **Description:**

Mixture of substances listed with non-hazardous additions and/or components that are less than listing threshold. All non-hazardous, components listed under threshold, and listed component total 100%.

· **Dangerous Components:**

CAS: 26172-55-4	Methyl Chloro Isothiazolinone ⚠️ Acute toxicity - oral 3, H301; Acute toxicity - dermal 2, H310; Acute toxicity - inhalation 2, H330; ⚠️ Skin corrosion 1C, H314; Eye damage 1, H318; ⚠️ Aquatic Acute 1, H400 (M=100); ⚠️ Sensitization - skin 1A, H317 Specific concentration limits: Skin Corrosion 1C; H314: C ≥ 0.6 % Skin Irritation 2; H315: 0.06 % ≤ C < 0.6 % Eye Damage 1; H318: C ≥ 0.6 % Eye Irritation 2; H319: 0.06 % ≤ C < 0.6 % Sensitization - Skin 1A; H317: C ≥ 0.0015 %	<0.1%
CAS: 10043-52-4 RTECS: EV 9800000	Calcium chloride ⚠️ Eye irritation 2A, H319	<0.5%
CAS: 7758-02-3	Potassium Bromide ⚠️ Eye irritation 2A, H319	<0.1%
CAS: 10043-35-3 RTECS: ED 4550000	boric acid ⚠️ Reproductive toxicity 1B, H360	<0.01%
CAS: 7681-49-4	Sodium fluoride ⚠️ Acute toxicity - oral 3, H301; ⚠️ Skin irritation 2, H315; Eye irritation 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:**

Rinse opened eye for several minutes under running water.

If eye irritation occurs, consult a doctor.

· **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.

· **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.

(Contd. on page 3)

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

* **5 Fire-Fighting Measures**

- **Extinguishing media**
- **Suitable extinguishing agents:** 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.
- **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.

· **PAC-1:**

7786-30-3	Magnesium Chloride	11 mg/m ³
7757-82-6	Sodium Sulphate	9.8 mg/m ³
26172-55-4	Methyl Chloro Isothiazolinone	0.030 mg/m ³
10043-52-4	Calcium chloride	12 mg/m ³
144-55-8	Sodium Bicarbonate	13 mg/m ³
7758-02-3	Potassium Bromide	9.2 mg/m ³
10043-35-3	boric acid	6 mg/m ³
10476-85-4	Strontium chloride	8 mg/m ³
7681-49-4	Sodium fluoride	0.34 mg/m ³

· **PAC-2:**

7786-30-3	Magnesium Chloride	120 mg/m ³
7757-82-6	Sodium Sulphate	110 mg/m ³
26172-55-4	Methyl Chloro Isothiazolinone	1.8 mg/m ³
10043-52-4	Calcium chloride	33 mg/m ³
144-55-8	Sodium Bicarbonate	140 mg/m ³
7758-02-3	Potassium Bromide	100 mg/m ³
10043-35-3	boric acid	23 mg/m ³
10476-85-4	Strontium chloride	88 mg/m ³
7681-49-4	Sodium fluoride	3.8 mg/m ³

· **PAC-3:**

7786-30-3	Magnesium Chloride	550 mg/m ³
7757-82-6	Sodium Sulphate	650 mg/m ³
26172-55-4	Methyl Chloro Isothiazolinone	11 mg/m ³
10043-52-4	Calcium chloride	200 mg/m ³
144-55-8	Sodium Bicarbonate	840 mg/m ³

(Contd. on page 4)

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

7758-02-3	Potassium Bromide	610 mg/m ³
10043-35-3	boric acid	830 mg/m ³
10476-85-4	Strontium chloride	360 mg/m ³
7681-49-4	Sodium fluoride	44 mg/m ³

· **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.

7 Handling and Storage

· **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

· **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:**

· **Appropriate engineering controls** No further data; see section 7.

· **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.
- Togliere immediatamente tutti gli indumenti sporchi o contaminati.
- 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

Not required.

· **Material of gloves:** Latex or vinyl

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

- **Penetration time of glove material:** Not applicable.
- **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**

- | | |
|--|---|
| · Physical state | Liquid |
| · Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · Melting point/Melting range: | Not determined. |
| · Boiling point/Boiling range: | ≥100 °C (≥212 °F) |
| · Flammability: | Not applicable. |
| · Explosion limits: | |
| · Lower: | Not determined. |
| · Upper: | Not determined. |
| · Flash point: | None |
| · Auto igniting: | Not applicable |
| · Decomposition temperature: | Not determined. |
| · pH-value @ 20 °C (68 °F): | 8.2 |
| · Viscosity: | |
| · Kinematic: | Not determined. |
| · Dynamic: | Not determined. |
| · Solubility in / Miscibility with: | |
| · Water: | Aqueous solution |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Vapor pressure @ 20 °C (68 °F): | ≤23 hPa (≤17.3 mm Hg) |
| · Vapor pressure: | |
| · Density: | Not determined. |
| · Relative density: | Not determined. |
| · Vapor density: | Not determined. |
| · Particle characteristics | Not applicable. |
| · Other information: | |
| · Appearance: | |
| · Form: | Liquid |
| · Important information on protection of health and environment, and on safety. | |
| · Ignition temperature: | Product is not self-igniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Change in condition | |
| · Evaporation rate: | Not determined. |

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

- **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:**

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

26172-55-4 Methyl Chloro Isothiazolinone

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:

- **Interactive effects** No interactive effects between components are known.

- **Carcinogenic categories:**

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

7681-49-4	Sodium fluoride	3
-----------	-----------------	---

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

- **Alternative sources for toxicological information**

No non-standard sources for toxicological information where used.

12 Ecological Information

- **Toxicity:**

- **Aquatic toxicity:**

26172-55-4 Methyl Chloro Isothiazolinone

EC50	0.11-0.16 mg/l (Green algae)
------	------------------------------

	4.71 mg/l (Daphnia)
--	---------------------

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

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

- **Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

(Contd. on page 7)

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

· 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:		
The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.		
· 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.

- **Date of previous version** 02/02/2021
- **Version number of previous version:** 8
- **Date of preparation** 06/11/2025
- **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
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 06/11/2025

Revised on 06/11/2025

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

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)
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 toxicity - oral 3: Acute toxicity – Category 3
Acute toxicity - dermal 2: Acute toxicity – Category 2
Skin corrosion 1C: Skin corrosion/irritation – Category 1C
Skin irritation 2: Skin corrosion/irritation – Category 2
Eye damage 1: Serious eye damage/eye irritation – Category 1
Eye irritation 2A: Serious eye damage/eye irritation – Category 2A
Sensitization - skin 1A: Skin sensitisation – Category 1A
Reproductive toxicity 1B: Reproductive toxicity – Category 1B
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106