

## Safety Data Sheet (SDS)

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

Issue date 05/19/2024

Reviewed on 05/19/2024

### 1 Identification

- **Product Identifier**
- **Trade Name:** Post-column Oxidant reagent
- **Product Number:** PSP-R1
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Post-column reagent for paralytic shellfish toxins analysis
- **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:**



Skin Irritation 2 H315 Causes skin irritation.  
Eye Irritation 2A H319 Causes serious eye irritation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Warning
- **Hazard statements:**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.
- **Precautionary statements:**

P264	Wash thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P302+P352	If on skin: Wash with plenty of water.
P321	Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
- **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

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· **NFPA ratings (scale 0 - 4)**

Health = 2  
Fire = 0  
Reactivity = 0

· **HMS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

· **Hazard(s) not otherwise classified (HNOC):** None known

## \* 3 Composition/Information on Ingredients

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

· **Dangerous Components:**

1310-73-2	Sodium Hydroxide	≤1%
	<ul style="list-style-type: none"> <li>⚠ Skin Corrosion 1A, H314; ⚠ Acute Toxicity - Oral 4, H302</li> <li>Specific concentration limits: Skin Corrosion 1A; H314: C ≥ 5 %</li> <li>Skin Corrosion 1B; H314: 2 % ≤ C &lt; 5 %</li> <li>Skin Irritation 2; H315: 0.5 % ≤ C &lt; 2 %</li> <li>Eye Irritation 2; H319: 0.5 % ≤ C &lt; 2 %</li> </ul>	

· **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:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash with water and soap and rinse thoroughly.  
If skin irritation occurs, consult a doctor.
- **After eye contact:**  
Rinse opened eye for several minutes under running water.  
If easy to do so, remove contact lenses if worn.  
If eye irritation occurs, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
If swallowed and symptoms occur, consult a 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:** Treat symptomatically.

## 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.

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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:**  
Avoid contact with skin, eyes and clothing.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).  
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.

· <b>PAC-1:</b>		
1310-73-2	Sodium Hydroxide	0.5 mg/m <sup>3</sup>
7664-38-2	Phosphoric acid	3 mg/m <sup>3</sup>
10450-60-9	orthoperiodic acid	0.18 mg/m <sup>3</sup>
· <b>PAC-2:</b>		
1310-73-2	Sodium Hydroxide	5 mg/m <sup>3</sup>
7664-38-2	Phosphoric acid	30 mg/m <sup>3</sup>
10450-60-9	orthoperiodic acid	2.1 mg/m <sup>3</sup>
· <b>PAC-3:</b>		
1310-73-2	Sodium Hydroxide	50 mg/m <sup>3</sup>
7664-38-2	Phosphoric acid	150 mg/m <sup>3</sup>
10450-60-9	orthoperiodic acid	12 mg/m <sup>3</sup>

**7 Handling and Storage**

- **Handling**
- **Precautions for safe handling:** Keep away from sources of ignition.
- **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 at room temperature.
- **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 section 7.
- **Control parameters:**

· <b>Components with occupational exposure limits:</b>	
<b>1310-73-2 Sodium Hydroxide</b>	
PEL	Long-term value: 2 mg/m <sup>3</sup>

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REL	Ceiling limit value: 2 mg/m <sup>3</sup>
TLV	Ceiling limit value: 2 mg/m <sup>3</sup>

- **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:**  
The usual precautionary measures for handling chemicals should be followed.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **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 cannot 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 determined and observed by the manufacturer of the protective gloves.
- **Eye protection:**



Goggles recommended during refilling.

- **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:** Clear
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **pH-value @ 20 °C (68 °F):** 7.8
- **Change in condition**
  - **Melting point/Melting range:** Not determined.
  - **Boiling point/Boiling range:** Not determined.
- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.
- **Auto igniting:** Not applicable
- **Decomposition temperature:** Not determined.

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- **Ignition temperature:** 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:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - VOC content:** 0.00 %
- **Other information:** No further relevant information available.

**10 Stability and Reactivity**

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is 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:** Extremes of temperature and direct sunlight.
- **Incompatible materials:** Avoid exposure to heat, open flame, and corrosives.
- **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>1310-73-2 Sodium Hydroxide</b>		
Oral	LD50	2,000 mg/kg (Rat)
Inhalative	LC50/96 hours	45.4 mg/l (Oncorhynchus mykiss)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** Irritating effect.
- **Additional toxicological information:**
- **Carcinogenic categories:**

<b>IARC (International Agency for Research on Cancer):</b>
None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

### \* 12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

**1310-73-2 Sodium Hydroxide**

EC50 40 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.

· **Additional ecological information:**

· **General notes:** Not known to be hazardous to water.

· **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:**

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

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

### 14 Transport Information

· **UN-Number:**

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

· **UN proper shipping name:**

· **DOT, ADR/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.

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

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

None of the ingredients are listed.

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

7664-38-2	Phosphoric acid
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· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **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:**

1310-73-2	Sodium Hydroxide
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7664-38-2	Phosphoric acid
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· **New Jersey Special Hazardous Substance List:**

1310-73-2	Sodium Hydroxide		CO, R1
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7664-38-2	Phosphoric acid		CO
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· **Pennsylvania Right-to-Know List:**

1310-73-2	Sodium Hydroxide
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7664-38-2	Phosphoric acid
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· **Pennsylvania Special Hazardous Substance List:**

1310-73-2	Sodium Hydroxide		E
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7664-38-2	Phosphoric acid		E
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· **Carcinogenic categories:**

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms:**



· **Signal word:** Warning

· **Hazard statements:**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Precautionary statements:**

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 If on skin: Wash with plenty of water.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

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

P332+P313 If skin irritation occurs: Get medical advice/attention.

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

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

· **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.

· **Contact:**

· **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

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 Toxicity - Oral 4: Acute toxicity – Category 4

Skin Corrosion 1A: Skin corrosion/irritation – Category 1A

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

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

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