1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product Name**
Phosphate Buffered Saline: 1 L of 20X

**Product Code**
SC-362183

**Recommended use of the chemical and restrictions on use**

For research use only. Not intended for diagnostic or therapeutic use.

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification**

Serious eye damage/eye irritation

**Category**
Category 2A

**Label elements**

**Signal word**
Warning

**Hazard statements**
Causes serious eye irritation

**Symbols/Pictograms**

![Warning symbol]

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling.

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

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention.

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

If eye irritation persists: Get medical advice/attention.

**Hazards not otherwise classified (HNOC)**

**Hazards not otherwise classified (HNOC)**
Not applicable

**Other Information**

**NFPA**

Health hazards -

Flammability -

Stability -

Physical and chemical properties -

**HMIS**

Health hazards -

Flammability -

Physical hazards -

Personal protection -

Santa Cruz Biotechnology, Inc. www.scbt.com
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight %</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>70 - 90</td>
<td>&gt; 90 mL/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>10 - 30</td>
<td>= 3 g/kg (Rat)</td>
<td>&gt; 10 g/kg (Rabbit)</td>
<td>&gt; 42 g/m³ (Rat) 1 h</td>
</tr>
<tr>
<td>Sodium phosphate dibasic heptahydrate</td>
<td>7782-85-6</td>
<td>1 - 5</td>
<td>= 12930 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potassium Phosphate, Monobasic</td>
<td>7778-77-0</td>
<td>&lt;1</td>
<td>-</td>
<td>&gt; 4640 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>7447-40-7</td>
<td>&lt;1</td>
<td>= 2600 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First Aid Measures
General advice: Consult a physician if necessary. Remove to fresh air.
Eye contact: Wash with plenty of water.
Skin Contact: Wash skin with soap and water.
Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Ingestion: Never give anything by mouth to an unconscious person. Clean mouth with water.

Most important symptoms and effects, both acute and delayed
Symptoms: No information available.

Indication of any immediate medical attention and special treatment needed
Note to physicians: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: None.

Specific hazards arising from the chemical
Specific hazards arising from the chemical: No information available.
Hazardous combustion products: Carbon oxides.

Explosion data
Sensitivity to Mechanical Impact: No information available.
Sensitivity to Static Discharge: No information available.

Protective equipment and precautions for firefighters
Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**
See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**
- **Methods for containment**: Prevent further leakage or spillage if safe to do so.
- **Methods for cleaning up**: Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

**Precautions for safe handling**
Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**
- **Storage Conditions**: Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature.
- **Incompatible materials**: None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**
- **Engineering Controls**: Showers, Eyewash stations, Ventilation systems

**Individual protection measures, such as personal protective equipment**
- **Eye/face protection**: Wear safety glasses with side shields (or goggles).
- **Skin and Body Protection**: Wear protective gloves and protective clothing.
- **Respiratory protection**: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State**
- **Appearance**: liquid
- **Odor**: No information available

**Property**
- **pH**: When diluted to a 1X concentration, the pH will be ~7.4.
- **Melting point/freezing point**: No information available
- **Boiling point**: No information available
- **Flash point**: No information available
Density | No information available
Evaporation rate | No information available
Upper flammability limits | No information available
Lower flammability limit | No information available
Vapor pressure | No information available
Vapor density | No information available
Specific gravity | No information available
Water solubility | No information available
Solubility in other solvents | No information available
Partition coefficient | No information available
Autoignition temperature | No information available
Decomposition temperature | No information available
Kinematic viscosity | No information available
Explosive properties | No information available
Oxidizing properties | No information available

10. STABILITY AND REACTIVITY

Reactivity | Not applicable
Chemical stability | Stable under recommended storage conditions.
Possibility of Hazardous Reactions | None under normal processing.
Hazardous polymerization | No information available.
Conditions to avoid | Extremes of temperature and direct sunlight.
Incompatible materials | Strong oxidizing agents.
Hazardous Decomposition Products | Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation | No data available.
Eye contact | No data available.
Skin Contact | No data available.
Ingestion | No data available.

Information on toxicological effects
Symptoms | No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Chronic Toxicity | No information available.

Numerical measures of toxicity - Product Information
Unknown acute toxicity | No information available
The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) | 19690 mg/kg
ATEmix (dermal) | 70731 mg/kg
ATEmix (inhalation-vapor) | 297 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity | May cause long lasting harmful effects to aquatic life

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphate Buffered Saline: 1 L of 20X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.157% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability  No information available.
Bioaccumulation  No information available.
Mobility  No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of wastes  Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging  Do not reuse container.

14. TRANSPORT INFORMATION

DOT  Not regulated
IMDG  Not regulated
IATA  Not regulated

15. REGULATORY INFORMATION

International Inventories
All of the components in the product are on the following Inventory lists
Australia (AICS) China (IECSC) Philippines (PICCS)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td></td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sodium phosphate dibasic heptahydrate</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Potassium Phosphate, Monobasic</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

X - Listed
US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
- Acute health hazard: No
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION

Revision note
No information available

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet