1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Phosphate Buffered Saline 20X Liquid Concentrate

Product Code(s): E703

Distributor: AMRESCO INC.
6681 Cochran Road
SOLON, OHIO  44139

Company Phone Number: 1-800-829-2805
Emergency Telephone Number: Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Potential Health Effects

Acute Toxicity
- Eyes: Irritating to eyes.
- Skin: Irritating to skin.
- Inhalation: Irritating to respiratory system.
- Ingestion: Causes irritation by ingestion.

Chronic Effects: No known effect based on information supplied.

Aggravated Medical Conditions: None known.

Environmental Hazard: See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride USP</td>
<td>7647-14-5</td>
<td>15-20</td>
</tr>
<tr>
<td>Sodium phosphate</td>
<td>7558-80-7</td>
<td>1-4</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact: Wash skin with soap and water.

Inhalation: Move to fresh air. If breathing becomes difficult, give oxygen.
Ingestion
Clean mouth with water and afterwards drink plenty of water.

Notes to Physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties
Not flammable.

Flash Point
Not determined

Suitable Extinguishing Media
Dry chemical, CO2, water spray or regular foam.

Hazardous Combustion Products
Carbon oxides

Explosion Data
- Sensitivity to Mechanical Impact: Not sensitive.
- Sensitivity to Static Discharge: Not sensitive.

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
Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up
Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Handling
Handle in accordance with good industrial hygiene and safety practice.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride USP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium phosphate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7558-80-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering Measures
- Showers
- Eyewash stations
- Ventilation systems.

Personal Protective Equipment
- Eye/Face Protection
  Avoid contact with eyes. Safety glasses with side-shields.
Skin and Body Protection
Wear protective gloves/clothing. 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.

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.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear haze-free</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability
Stable under recommended storage conditions.

Incompatible Products

Conditions to Avoid
None known based on information supplied.

Hazardous Decomposition Products
Carbon oxides.

Hazardous Polymerization
Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Product Information
Causes skin, eye and respiratory tract irritation.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride USP</td>
<td>10 g/kg (Rabbit)</td>
<td>42 g/m³ (Rat)</td>
<td>1 h</td>
</tr>
<tr>
<td>Sodium phosphate</td>
<td>8290 mg/kg (Rat)</td>
<td>7940 mg/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Chronic Toxicity
Target Organ Effects
None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic organisms.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Microtox</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride USP</td>
<td></td>
<td>LC50= 12946 mg/L Lepomis macrochirus 96 h</td>
<td>EC50 = 1000 mg/L 48 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50= 7650 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50= 9675 mg/L Lepomis macrochirus 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method**
Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging**
Dispose of in accordance with all federal, state and local regulations.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride USP - 7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium phosphate - 7558-80-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 14. TRANSPORT INFORMATION

**DOT**
Not regulated

**IATA**
Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

**U.S. Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or 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: Yes
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

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).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

U.S. State Regulations

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

International Regulations

Mexico - Grade: No information available.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
Not determined

16. OTHER INFORMATION

Issuing Date: 07/17/09
Revision Date
Revision Note: No information available.
Disclaimer
The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS