Material Safety Data Sheet
Sodium Borate Solution, Borax 1-4%, Buffer pH 9.18

Section 1 - Chemical Product and Company Identification

MSDS Name:
Sodium Borate Solution, Borax 1-4%, Buffer pH 9.18

Catalog Numbers:
Q01711, Q05421, Q06922

Synonyms:
solutions of...borax, borax decahydrate, buffer pH 9.18 sodium tetraborate, buffer pH 9.18

Company Identification:
Qorpak
1195 Washington Pike
Bridgeville, PA 15017

Company Phone Number:
(412) 257-3100

Emergency Phone Number:
(800) 424-9300

CHEMTREC Phone Number:
(800) 424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>balance</td>
</tr>
<tr>
<td>1303-96-4</td>
<td>Borates, tetra, sodium salts, decahydrate</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless
Caution! May cause eye irritation and transient injury. May cause respiratory and digestive tract irritation.
Target Organs: none known.

Potential Health Effects

Eye:
Causes redness, pain, and irritation.

Skin:
Borates absorbed through the skin producing skin eruptions, anuria, fever. Skin readily absorbed through damaged, abraded, burned skin or open wounds; produce system effects as in inhalation.
Ingestion:
May produce vomiting, diarrhea, erythoderma (followed by desquamation, excoriation, blistering, sloughing); lethargy, muscle twitching, convulsions, hyperpyrexia, jaundice, kidney damage with oliguria, anuria, cyanosis, hypotension, collapse, and coma. Fatal dose 5-30g.

Inhalation:
Causes effects similar to those of acute skin absorption.

Chronic:
Prolonged or repeated eye contact may cause conjunctivitis. May result in anorexia, weight loss, vomiting, mild diarrhea, skin rash, convulsions, anemia, alopecia. Skin - prolonged contact may result in inhalation symptoms.

Section 4 - First Aid Measures

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:
Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:
Give conscious victim 2-4 cupfuls of milk or water. Induce vomiting (touch finger to back of throat) keeping head lower than hips (prevent aspiration into lungs).

Inhalation:
Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust. Acts as fire retardant when impregnated into combustible materials.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
CAS# 7732-18-5: Not published.
CAS# 1303-96-4: Not published.

Explosion Limits:
Lower: Upper:
Material Safety Data Sheet
Sodium Borate Solution, Borax 1-4%, Buffer pH 9.18

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Area may be washed down with water. Larger spills have a herbicidal effect, keep out of water/sewer.

Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:
Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Provide local exhaust or general dilution ventilation.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name:</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
</tr>
<tr>
<td>Borates, tetra, sodium salts, decahydrate</td>
<td>1 mg/m3 TWA (anhydrous); 5 mg/m3 TWA (decahydrate); 1 mg/m3 TWA (pentahydrate)</td>
<td>5 mg/m3 TWA</td>
<td></td>
</tr>
</tbody>
</table>

OSHA Vacated PELs
Borates, tetra, sodium salts, decahydrate: 10 mg/m3 TWA

Personal Protective Equipment

Eyes:
Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.
Section 9 - Physical and Chemical Properties

- **Physical State**: Clear liquid
- **Color**: colorless
- **Odor**: odorless
- **pH**: 9.18
- **Vapor Pressure**: No information found.
- **Vapor Density**: No information found.
- **Evaporation Rate**: < ether
- **Viscosity**: No information found.
- **Boiling Point**: No information found.
- **Freezing/Melting Point**: No information found.
- **Decomposition Temperature**: No information found.
- **Solubility in water**: Soluble.
- **Specific Gravity/Density**: No information found.
- **Molecular Formula**: No information found.
- **Molecular Weight**: No information found.

Section 10 - Stability and Reactivity

**Chemical Stability**: Stable under normal temperatures and pressures.

**Conditions to Avoid**: Incompatible materials.

**Incompatibilities with Other Materials**: No information found.

**Hazardous Decomposition Products**: Toxic fumes of sodium oxide.

**Hazardous Polymerization**: Has not been reported

Section 11 - Toxicological Information

**RTECS**:
- CAS# 7732-18-5: ZC0110000.
- CAS# 1303-96-4: VZ2275000.

**LD50/LC50**:
- **CAS# 7732-18-5**:
  - Oral, rat: LD50 = >90 mL/kg.
- **CAS# 1303-96-4**:
  - Oral, mouse: LD50 = 2 gm/kg
  - Oral, rat: LD50 = 2660 mg/kg.

**Carcinogenicity**: CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
Material Safety Data Sheet
Sodium Borate Solution, Borax 1-4%, Buffer pH 9.18

CAS# 1303-96-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**
Borate poisoning affects kidneys; eye, skin, mucous membrane irritant.

**Teratogenicity:**

**Reproductive:**

**Mutagenicity**

**Neurotoxicity**

### Section 12 - Ecological Information

No information found.

### Section 13 - Disposal Considerations

Dispose of in accordance with federal, state, and local regulations.

### Section 14 - Transport Information

**US DOT**

- **Shipping Name:** Not regulated.
- **Hazard Class:**
- **UN Number:**
- **Packing Group:**

### Section 15 - Regulatory Information

**US Federal**

**TSCA**
CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 1303-96-4 is listed on the TSCA Inventory.

**SARA Reportable Quantities (RQ)**
None of the components are on this list.

**CERCLA/SARA Section 313**
None of the components are on this list.

**OSHA - Highly Hazardous**
None of the components are on this list.

**US State**

**State Right to Know**
Borates, tetra, sodium salts, decahydrate can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
California Regulations

European/International Regulations

Canadian DSL/NDSL

- CAS# 7732-18-5 is listed on Canada's DSL List.
- CAS# 1303-96-4 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

- CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
- CAS# 1303-96-4 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: February 16, 1998
Revision Date: February 25, 2004

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