1. Product and Company Identification

Product Name: Spa Bromine Start  
CAS #: Mixture  
Product: Spa water treatment  
Manufacturer: Natural Chemistry, Inc.  
40 Richards Ave.  
Norwalk, CT 06854 US  
Phone: (800) 753-1233  
Emergency Phone: CHEMTREC (800) 424-9300

2. Hazards Identification

Emergency overview: WARNING  
EYE IRRITANT

Potential short term health effects:
- **Routes of exposure**: Eye, Skin contact, Inhalation, Ingestion.
- **Eyes**: May cause irritation.
- **Skin**: May cause irritation.
- **Inhalation**: Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
- **Ingestion**: May cause stomach distress, nausea or vomiting.

Target organs: Central nervous system, Eyes, Skin, Respiratory system.

Chronic effects: Prolonged contact with sodium bromide may produce rashes, central nervous system depression, emaciation, psychoses and mental deterioration. Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms: Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bromide</td>
<td>7647-15-6</td>
<td>90 - 100</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures:
- **Eye contact**: Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
- **Skin contact**: Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
- **Inhalation**: If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
- **Ingestion**: Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

Notes to physician: Symptoms may be delayed.
### General advice
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

### 5. Fire Fighting Measures

<table>
<thead>
<tr>
<th>Flammable properties</th>
<th>Not flammable by OSHA criteria.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media</td>
<td>Treat for surrounding material.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Protection of firefighters**

| Specific hazards arising from the chemical | Not available |
| Protective equipment for firefighters | Firefighters should wear full protective clothing including self contained breathing apparatus. |

**Hazardous combustion products**

May include and are not limited to: Oxides of sodium. Hydrogen bromide.

**Explosion data**

| Sensitivity to mechanical impact | Not available |
| Sensitivity to static discharge | Not available |

### 6. Accidental Release Measures

| Personal precautions | Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. |
| Methods for containment | Prevent entry into waterways, sewers, basements or confined areas. |
| Methods for cleaning up | Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. |

### 7. Handling and Storage

**Handling**

Use good industrial hygiene practices in handling this material.

**Storage**

Keep out of reach of children. Store in a closed container away from incompatible materials.

### 8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient(s)</td>
<td></td>
</tr>
<tr>
<td>Sodium Bromide</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
</tbody>
</table>

**Engineering controls**

Use only under good ventilation conditions or with respiratory protection.

**Personal protective equipment**

| Eye / face protection | Wear safety glasses with side shields. |
| Hand protection       | Rubber gloves. Confirm with a reputable supplier first. |
| Skin and body protection | As required by employer code. |
| Respiratory protection | Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product. |

### 9. Physical & Chemical Properties

**Appearance**

Crystalline.
10. Chemical Stability & Reactivity Information

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Do not mix with other chemicals.

Incompatible materials

Hazardous decomposition products
May include and are not limited to: Oxides of sodium. Hydrogen bromide.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bromide</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Component analysis - Oral LD50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bromide</td>
<td>2000 mg/kg rabbit; 7000 mg/kg mouse; 3500 mg/kg rat</td>
</tr>
</tbody>
</table>

Effects of acute exposure

- **Eye**: May cause irritation.
- **Skin**: May cause irritation.
- **Inhalation**: Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
- **Ingestion**: May cause stomach distress, nausea or vomiting.
- **Sensitization**: Non-hazardous by OSHA criteria.
- **Chronic effects**: Prolonged contact with sodium bromide may produce rashes, central nervous system depression, emaciation, psychoses and mental deterioration.
- **Carcinogenicity**: Non-hazardous by OSHA criteria.
- **Mutagenicity**: Non-hazardous by OSHA criteria.
- **Reproductive effects**: Non-hazardous by OSHA criteria.
- **Teratogenicity**: Contains a potential teratogen.
## 12. Ecological Information

### Ecotoxicity

Components of this product have been identified as having potential environmental concerns.

**Ecotoxicity - Freshwater Algae Data**  
Sodium Bromide 7647-15-6  96 Hr EC50 Scenedesmus pannonicus: 5.8-24 g/L  

**Ecotoxicity - Freshwater Fish Species Data**  
Sodium Bromide 7647-15-6  96 Hr LC50 Oryzias latipes: 24000-96000 mg/L [flow-through]; 96 Hr LC50 Poecilia reticulata: 16000-48000 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 16479 mg/L [static]

**Ecotoxicity - Water Flea Data**  
Sodium Bromide 7647-15-6  48 Hr EC50 Daphnia magna: 5.8-48 g/L

### Environmental effects  
Not available

### Aquatic toxicity  
Not available

### Persistence / degradability  
Not available

### Bioaccumulation / accumulation  
Not available

### Partition coefficient  
Not available

### Mobility in environmental media  
Not available

### Chemical fate information  
Not available

## 13. Disposal Considerations

**Waste codes**  
Not available

**Disposal instructions**  
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste from residues / unused products**  
Not available

**Contaminated packaging**  
Not available

## 14. Transport Information

**U.S. Department of Transportation (DOT)**  
Not regulated as dangerous goods.

## 15. Regulatory Information

**US Federal regulations**  
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**CERCLA/SARA Hazardous Substances**  
Not applicable.

**Occupational Safety and Health Administration (OSHA)**  
29 CFR 1910.1200 hazardous chemical  
Yes

**CERCLA (Superfund) reportable quantity**  
None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**
- Immediate Hazard - Yes
- Delayed Hazard - Yes
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

**Section 302 extremely hazardous substance**  
No

**Section 311 hazardous chemical**  
Yes

**Clean Air Act (CAA)**  
Not available

**Clean Water Act (CWA)**  
Not available

**Safe Drinking Water Act (SDWA)**  
Not available

**Drug Enforcement Agency (DEA)**  
Not available
State regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Inventory status
<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

16. Other Information

Disclaimer
Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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