1. Identification of substance / mixture

**Mixture**

1. Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Code</th>
<th>CAS Number</th>
<th>Other Names</th>
<th>IUPAC</th>
<th>MFCD Number</th>
<th>EC/EINECS</th>
<th>REACH Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5X Reaction Buffer B</td>
<td>WS0049</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

2. Relevant identified uses of the substance or mixture and uses advised against

- Research and Development

3. Details of the supplier of the safety data sheet

- ProZyme, Inc
  - 3832 Bay Center Place,
  - Hayward
  - CA 94545-3619 USA
  - Telephone: +1 (760) 476 3961
  - Fax number: +1 (510) 638 6919
  - Email: info@prozyme.com

4. Emergency telephone number

- +1 (760) 476 3961

2. Hazards Identification

1. Classification of the substance or mixture

- None Hazardous

2. Label elements

- None Hazardous

Hazard Statements

- None Hazardous

Precautionary Phrases

- None Hazardous

3. Other Hazards

- None Hazardous

3. Composition / Information on Ingredients

1. Substances

- Not Relevant

2. Mixtures

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Product Name</th>
<th>CAS Number</th>
<th>EC/EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 mM</td>
<td>sodium phosphate dibasic solution</td>
<td>7558-79-4</td>
<td>231-448-7</td>
</tr>
<tr>
<td>250 mM</td>
<td>sodium phosphate monobasic solution</td>
<td>7558-80-7</td>
<td>231-449-2</td>
</tr>
</tbody>
</table>

4. First Aid Measures

1. Description of first aid measures
## Skin Contact
Rinse with plenty of water. If symptoms arise, call a physician.

## Eye Contact
Rinse with plenty of water. If symptoms arise, call a physician.

## Ingestion
Never give anything by mouth to an unconscious person. If symptoms arise, call a physician. Do not induce vomiting without medical advice.

## Inhalation
Move to fresh air. If symptoms arise, call a physician. If not breathing, give artificial respiration.

### 2. Most important symptoms and effects
There may be mild irritation at the site of contact.

### 3. Indication of any immediate medical attention
Obtain medical attention in the event of any acute or delayed symptoms.

### 5. Firefighting measures

#### 1. Extinguishing Media

<table>
<thead>
<tr>
<th>Suitable</th>
<th>Unsuitable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media for surrounding fire should be used.</td>
<td>NA</td>
</tr>
</tbody>
</table>

#### 2. Special Hazards arising from the substance or mixture
Hazardous decomposition products may form under fire conditions: sodium/sodium oxides, phosphorous oxides.

### 3. Advice for Fire Fighters
Wear self-contained breathing apparatus for firefighting if necessary.

### 6. Accidental Release Measures

#### 1. Personal Precautions
Refer to section 8 of SDS for personal protection details.

#### 2. Environmental Precautions
Do not discharge into drains or rivers.

#### 3. Methods & Materials
Absorb small spills with appropriate absorbent material.

### 7. Handling and Storage

#### 1. Personal Precautions

<table>
<thead>
<tr>
<th>Safe Handling</th>
<th>Protection against explosions and fires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). Handle in accordance with all current regulations and standards.</td>
<td>NA</td>
</tr>
</tbody>
</table>
2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Managing Storage Risks</th>
<th>Handle and store in accordance with all current regulations and standards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Controls</td>
<td>Store according to label.</td>
</tr>
<tr>
<td>Maintaining Integrity</td>
<td>Store cold, according to label.</td>
</tr>
<tr>
<td>Other advice</td>
<td>NA</td>
</tr>
</tbody>
</table>

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

Not Applicable

2. Exposure Controls

<table>
<thead>
<tr>
<th>General protective and hygiene measures</th>
<th>Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). The standard precautionary measures should be adhered to when handling.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering measures</td>
<td>The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.</td>
</tr>
<tr>
<td>Eye / Face Protection</td>
<td>Safety Glasses.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Protective gloves.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Respiratory protection not required.</td>
</tr>
<tr>
<td>Skin protection</td>
<td>Wear appropriate protective clothing (safety glasses, gloves, laboratory coat).</td>
</tr>
<tr>
<td>Other personal protection advice</td>
<td>NA</td>
</tr>
</tbody>
</table>

9. Physical and Chemical Properties

1. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>colorless liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Not Available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>PH</td>
<td>6.0</td>
</tr>
<tr>
<td>Melting point / Freezing point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flammability(solid,gas)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Solubility(ies):</td>
<td>Not Available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not Available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not Available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

2. Other Information
NA

10. Stability and Reactivity

1. Reactivity
No dangerous reaction known under conditions of normal use.

2. Stability
Stable under recommended storage conditions.

3. Possibility of Hazardous Reactions
No hazardous reactions known.

4. Conditions to Avoid
Strong oxidizing agents.

5. Incompatible Materials
None known.

6. Hazardous Decomposition Products
May emit oxides of sodium or phosphorus.

11. Toxicology information

1. Information
- Acute Toxicity: No data available.
- Skin corrosion/irritation: May be harmful if absorbed through the skin.
- Serious eye damage/irritation: May cause eye irritation.
- Respiratory or skin sensitisation: May be harmful if inhaled.
- Germ Cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: May be harmful if inhaled.

2. Additional
No data available.

12. Ecological Information

1. Toxicty
No data available.

2. Persistence and degradability
No data available.

3. Bio-Accumulative Potential

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Page 4 of 6
### 4. Mobility and Soil

No data available.

### 5. Results of PBT & vPvB assessment

No data available.

### 6. Other adverse effects

No data available.

### 13. Disposal Considerations

#### 1. Waste Treatment Methods

<table>
<thead>
<tr>
<th>Disposal Operations</th>
<th>Disposal of according to local regulations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal of Packaging</td>
<td>No special requirements. Dispose of according to local regulations.</td>
</tr>
</tbody>
</table>

### 14. Transport Information

**Air (ICAO)**

Not classified as hazardous for transport

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**Road (ADR)**

Not classified as hazardous for transport

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**Sea (IMDG)**

Not classified as hazardous for transport

### 15. Safety, health and environmental regulations

#### 1. Safety, health and environmental regulations:

No data available

#### 2. Safety Assessment

No Chemical Safety Assessment

### 16. Other Information

#### 1. Other Information:
Safety Data Sheet

ADR: Accord Europeen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service

2. Associated risk phrases according to European directive 67/548/EEC

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.