SECTION 1: Identification

1.1. Identification

Product form : Mixture  
Trade name : WB4 Buffer  
Product code : 190541, 190562, 190616  

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Scientific research and development  
Recommended use : Scientific research and development  
Restrictions on use : None known

1.3. Supplier

Covaris, LLC  
14 Gill St., Unit H  
Woburn, MA 01801  
USA  
T +1 (781) 932-3959

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling
No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(ethylene) Oxide</td>
<td>CAS-No.: 25322-68-3</td>
<td>10 – 30</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16
SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Move the affected person to fresh air. Get medical attention if symptoms occur.
First-aid measures after skin contact: Gently wash with plenty of soap and water. Get medical advice if skin irritation persists.
First-aid measures after eye contact: Rinse eyes with water as a precaution. Get medical attention if irritation develops and persists.
First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects
Inhalation: May cause slight temporary irritation.
Skin: May cause minor irritation to the skin.
Eyes: May cause minor eye irritation.
Ingestion: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Not required.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media: None.

5.2. Specific hazards arising from the chemical

Fire hazard: This product is not classified as flammable or combustible.
Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Wear suitable protective clothing. Avoid contact with eyes, skin and clothing.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material.
Other information: Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).
### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

<table>
<thead>
<tr>
<th>Precautions for safe handling</th>
<th>: Avoid contact with eyes, skin and clothing. Wash hands with water and soap. Ensure adequate ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygiene measures</td>
<td>: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</td>
</tr>
</tbody>
</table>

#### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Storage conditions</th>
<th>: No special storage required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible materials</td>
<td>: None known.</td>
</tr>
</tbody>
</table>

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>WB4 Buffer</th>
<th>No additional information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(ethylene) Oxide (25322-68-3)</td>
<td>No additional information available</td>
</tr>
</tbody>
</table>

#### 8.2. Appropriate engineering controls

<table>
<thead>
<tr>
<th>Appropriate engineering controls</th>
<th>: No particular/specific measures required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental exposure controls</td>
<td>: Avoid release to the environment.</td>
</tr>
</tbody>
</table>

#### 8.3. Individual protection measures/Personal protective equipment

<table>
<thead>
<tr>
<th>Hand protection:</th>
<th>Wear suitable gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye protection:</td>
<td>Use suitable eye protection</td>
</tr>
<tr>
<td>Skin and body protection:</td>
<td>None under normal conditions</td>
</tr>
<tr>
<td>Respiratory protection:</td>
<td>In case of insufficient ventilation, wear suitable respiratory equipment. In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.</td>
</tr>
</tbody>
</table>

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>: Liquid</th>
</tr>
</thead>
</table>
### Appearance
Clear, colorless liquid.

### Color
Colorless

### Odor
None

### Odor threshold
No data available

### pH
7.6

### Melting point
Not applicable

### Freezing point
No data available

### Boiling point
100 °C

### Flash point
No data available

### Relative evaporation rate (butyl acetate=1)
No data available

### Flammability (solid, gas)
Not applicable

### Vapor pressure
No data available

### Relative vapor density at 20 °C
No data available

### Relative density
No data available

### Solubility
No data available

### Partition coefficient n-octanol/water (Log Pow)
No data available

### Auto-ignition temperature
No data available

### Decomposition temperature
No data available

### Viscosity, kinematic
No data available

### Viscosity, dynamic
No data available

### Explosion limits
No data available

### Explosive properties
No data available

### Oxidizing properties
No data available

### 9.2. Other information
No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability
Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid
None known.

#### 10.5. Incompatible materials
None known.

#### 10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
### Acute toxicity (inhalation)
- Not classified

<table>
<thead>
<tr>
<th><strong>Poly(ethylene) Oxide (25322-68-3)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Poly(ethylene) Oxide (25322-68-3)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAEL (animal/female, F0/P)</td>
</tr>
<tr>
<td>NOAEL (animal/female, F0/P)</td>
</tr>
</tbody>
</table>

### Skin corrosion/irritation
- Not classified

<table>
<thead>
<tr>
<th><strong>Poly(ethylene) Oxide (25322-68-3)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>pH: 7.6</td>
</tr>
</tbody>
</table>

### Serious eye damage/irritation
- Not classified

<table>
<thead>
<tr>
<th><strong>Poly(ethylene) Oxide (25322-68-3)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>pH: 7.6</td>
</tr>
</tbody>
</table>

### Respiratory or skin sensitization
- Not classified

### Germ cell mutagenicity
- Not classified

### Carcinogenicity
- Not classified

### Reproductive toxicity
- Not classified

### Aspiration hazard
- Not classified

### Viscosity, kinematic
- No data available

### Symptoms/effects
- May cause slight temporary irritation.
  - May cause minor irritation to the respiratory tract and to other mucous membranes.
  - May cause slight irritation to the skin.
  - May cause minor eye irritation:
    - May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Section 12: Ecological information

#### 12.1. Toxicity
- The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<table>
<thead>
<tr>
<th><strong>Poly(ethylene) Oxide (25322-68-3)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 - Fish [1]</td>
</tr>
<tr>
<td>EC50 - Crustacea [1]</td>
</tr>
<tr>
<td>EC50 96h - Algae [1]</td>
</tr>
<tr>
<td>ErC50 algae</td>
</tr>
<tr>
<td>NOEC (chronic)</td>
</tr>
<tr>
<td>NOEC chronic fish</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
- No additional information available
12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Regional legislation (waste) : Dispose of in accordance with applicable federal, state, and local regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector’s sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>TDG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not regulated for transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.2. Proper Shipping Name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

No supplementary information available

14.6. Special precautions for user

DOT
No data available

TDG
No data available

IMDG
No data available

IATA
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable
SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

WB4 Buffer

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

Poly(ethylene) Oxide (25322-68-3)

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information


Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.