SAFETY DATA SHEET
miRNA Spike-In Kit, Part Number 5190-1934

Section 1. Identification

Product identifier : miRNA Spike-In Kit, Part Number 5190-1934
Part no. (chemical kit) : 5190-1934
Part no. : Dilution Buffer 5190-2301
Labeling Spike-In 5190-2302
Hyb Spike-In 5190-2303
Material uses : Analytical reagent.

<table>
<thead>
<tr>
<th>Part no. (chemical kit)</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 x 1.6 ml</td>
<td>0.01 ml</td>
<td>0.01 ml</td>
</tr>
</tbody>
</table>

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture
Not classified.

GHS label elements

Signal word : Dilution Buffer No signal word.
Labeling Spike-In No signal word.
Hyb Spike-In No signal word.

Hazard statements : Dilution Buffer No known significant effects or critical hazards.
Labeling Spike-In No known significant effects or critical hazards.
Hyb Spike-In No known significant effects or critical hazards.

Precautionary statements

Prevention : Dilution Buffer Not applicable.
Labeling Spike-In Not applicable.
Hyb Spike-In Not applicable.

Response : Dilution Buffer Not applicable.
Labeling Spike-In Not applicable.
Hyb Spike-In Not applicable.

Storage : Dilution Buffer Not applicable.
Labeling Spike-In Not applicable.
Hyb Spike-In Not applicable.

Disposal : Dilution Buffer Not applicable.
Labeling Spike-In Not applicable.
Hyb Spike-In Not applicable.

Supplemental label elements : Dilution Buffer None known.
Labeling Spike-In None known.
Hyb Spike-In None known.

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miRNA Spike-In Kit, Part Number 5190-1934

Section 2. Hazard identification

<table>
<thead>
<tr>
<th>Other hazards which do not result in classification</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mixture</td>
<td>Mixture</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

**Description of necessary first aid measures**

**Eye contact**

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inhalation**

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skin contact**

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ingestion**

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Section 4. First-aid measures

Hyb Spike-In

- Water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Type</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Type</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Indication of immediate medical attention and special treatment needed, if necessary

<table>
<thead>
<tr>
<th>Type</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes to physician</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>Specific treatments</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>
Section 4. First-aid measures

Protection of first-aiders:

<table>
<thead>
<tr>
<th>Product</th>
<th>First-aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media:

<table>
<thead>
<tr>
<th>Product</th>
<th>Extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Unsuitable extinguishing media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>None known.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>None known.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Specific hazards arising from the chemical:

<table>
<thead>
<tr>
<th>Product</th>
<th>Specific hazards arising from the chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

Hazardous thermal decomposition products:

<table>
<thead>
<tr>
<th>Product</th>
<th>Hazardous thermal decomposition products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Special protective actions for fire-fighters:

<table>
<thead>
<tr>
<th>Product</th>
<th>Special protective actions for fire-fighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

Special protective equipment for fire-fighters:

<table>
<thead>
<tr>
<th>Product</th>
<th>Special protective equipment for fire-fighters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilution Buffer</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
<tr>
<td>Labeling Spike-In</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
<tr>
<td>Hyb Spike-In</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
</tbody>
</table>
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Dilution Buffer
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Labeling Spike-In
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Hyb Spike-In
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: Dilution Buffer
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Labeling Spike-In
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Hyb Spike-In
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Dilution Buffer
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Labeling Spike-In
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Hyb Spike-In
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Methods for cleaning up: Dilution Buffer
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Labeling Spike-In
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

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Section 6. Accidental release measures

Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Hyb Spike-In
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

<table>
<thead>
<tr>
<th>Precautions for safe handling</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective measures</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
<tr>
<td>Advice on general occupational hygiene</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conditions for safe storage, including any incompatibilities</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
<td></td>
</tr>
</tbody>
</table>
Section 7. Handling and storage

Hyb Spike-In

ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits
None.

Appropriate engineering controls

Environmental exposure controls

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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Section 8. Exposure controls/personal protection

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

### Appearance

<table>
<thead>
<tr>
<th>Property</th>
<th>Dilution Buffer</th>
<th>Labeling Spike-In</th>
<th>Hyb Spike-In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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Section 9. Physical and chemical properties

### Solubility
- **Dilution Buffer**: Easily soluble in the following materials: cold water and hot water.
- **Labeling Spike-In**: Easily soluble in the following materials: cold water and hot water.
- **Hyb Spike-In**: Easily soluble in the following materials: cold water and hot water.

### Partition coefficient: n-octanol/water
- **Dilution Buffer**: Not available.
- **Labeling Spike-In**: Not available.
- **Hyb Spike-In**: Not available.

### Auto-ignition temperature
- **Dilution Buffer**: Not available.
- **Labeling Spike-In**: Not available.
- **Hyb Spike-In**: Not available.

### Decomposition temperature
- **Dilution Buffer**: Not available.
- **Labeling Spike-In**: Not available.
- **Hyb Spike-In**: Not available.

### Viscosity
- **Dilution Buffer**: Not available.
- **Labeling Spike-In**: Not available.
- **Hyb Spike-In**: Not available.

Section 10. Stability and reactivity

### Reactivity
- **Dilution Buffer**: No specific test data related to reactivity available for this product or its ingredients.
- **Labeling Spike-In**: No specific test data related to reactivity available for this product or its ingredients.
- **Hyb Spike-In**: No specific test data related to reactivity available for this product or its ingredients.

### Chemical stability
- **Dilution Buffer**: The product is stable.
- **Labeling Spike-In**: The product is stable.
- **Hyb Spike-In**: The product is stable.

### Possibility of hazardous reactions
- **Dilution Buffer**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **Labeling Spike-In**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **Hyb Spike-In**: Under normal conditions of storage and use, hazardous reactions will not occur.

### Conditions to avoid
- **Dilution Buffer**: No specific data.
- **Labeling Spike-In**: No specific data.
- **Hyb Spike-In**: No specific data.

### Incompatible materials
- **Dilution Buffer**: May react or be incompatible with oxidizing materials.
- **Labeling Spike-In**: May react or be incompatible with oxidizing materials.
- **Hyb Spike-In**: May react or be incompatible with oxidizing materials.

### Hazardous decomposition products
- **Dilution Buffer**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **Labeling Spike-In**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **Hyb Spike-In**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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Section 11. Toxicological information

Information on toxicological effects

**Acute toxicity**
Not available.

**Irritation/Corrosion**
Not available.

**Sensitization**
Not available.

**Mutagenicity**

**Conclusion/Summary**
Not available.

**Carcinogenicity**

**Conclusion/Summary**
Not available.

**Reproductive toxicity**

**Conclusion/Summary**
Not available.

**Teratogenicity**

**Conclusion/Summary**
Not available.

**Specific target organ toxicity (single exposure)**
Not available.

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

Information on the likely routes of exposure

**Dilution Buffer**
Not available.

**Labeling Spike-In**
Not available.

**Hyb Spike-In**
Not available.

Potential acute health effects

**Eye contact**

- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

**Inhalation**

- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

**Skin contact**

- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

**Ingestion**

- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**

- Dilution Buffer: No specific data.
- Labeling Spike-In: No specific data.
- Hyb Spike-In: No specific data.

**Inhalation**

- Dilution Buffer: No specific data.
- Labeling Spike-In: No specific data.
- Hyb Spike-In: No specific data.
Section 11. Toxicological information

### Skin contact
- Dilution Buffer: No specific data.
- Labeling Spike-In: No specific data.
- Hyb Spike-In: No specific data.

### Ingestion
- Dilution Buffer: No specific data.
- Labeling Spike-In: No specific data.
- Hyb Spike-In: No specific data.

### General
- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

### Carcinogenicity
- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

### Mutagenicity
- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

### Teratogenicity
- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

### Developmental effects
- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

### Fertility effects
- Dilution Buffer: No known significant effects or critical hazards.
- Labeling Spike-In: No known significant effects or critical hazards.
- Hyb Spike-In: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates
N/A

### Section 12. Ecological information

#### Toxicity
Not available.

#### Persistence and degradability
Not available.
Section 12. Ecological information

Bioaccumulative potential
Not available.

Mobility in soil

| Soil/water partition coefficient (K_{OC}) | Not available. |

Other adverse effects
No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / IMDG / IATA
Not regulated.

Special precautions for user
Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code
Not available.

Section 15. Regulatory information

Canadian lists
- Canadian NPRI: None of the components are listed.
- CEPA Toxic substances: None of the components are listed.

International regulations
- UNECE Aarhus Protocol on POPs and Heavy Metals: Not listed.
Section 15. Regulatory information

Not listed.

Inventory list

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<tr>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Australia</td>
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<tr>
<td>Canada</td>
<td>Not determined.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
</tr>
</tbody>
</table>
| Japan          | Japan inventory (ENCS): Not determined.  
|                | Japan inventory (ISHL): All components are listed or exempted.|
| New Zealand    | Not determined.|
| Philippines    | Not determined.|
| Republic of Korea | Not determined.|
| Taiwan         | All components are listed or exempted.|
| Thailand       | Not determined.|
| Turkey         | Not determined.|
| United States  | All components are listed or exempted.|
| Viet Nam       | Not determined.|

Section 16. Other information

History

| Date of issue/Date of revision | 10/18/2019 |
| Date of previous issue         | 09/27/2017 |
| Version                       | 6 |

Key to abbreviations

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- HPR = Hazardous Products Regulations
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- N/A = Not available
- UN = United Nations

Procedure used to derive the classification

<table>
<thead>
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<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
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</table>

References

- Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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