SAFETY DATA SHEET
Oligo aCGH/ChIP-on-Chip Hybridization Kit, Part Number 5188-5220

Section 1. Identification

Product identifier: Oligo aCGH/ChIP-on-Chip Hybridization Kit, Part Number 5188-5220
Part no. (chemical kit): 5188-5220
Part no.: 2X HI-RPM Hybridization Buffer 5188-6417
10X aCGH Blocking Agent, Lyophilized 5188-6416

Relevant identified uses of the substance or mixture and uses advised against
2X HI-RPM Hybridization Buffer 5 x 1.4 ml
10X aCGH Blocking Agent, Lyophilized 25 Hybs lyophilised

Supplier/Manufacturer: Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation): CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
2X HI-RPM Hybridization Buffer
H315 SKIN CORROSION/IRRITATION - Category 2
H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
H335 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

10X aCGH Blocking Agent, Lyophilized
H315 SKIN CORROSION/IRRITATION - Category 2
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
2X HI-RPM Hybridization Buffer Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 15.9%

GHS label elements
Hazard pictograms: 2X HI-RPM Hybridization Buffer

Date of issue/Date of revision: 29/09/2021
Date of previous issue: 16/05/2019
Version: 8
### Section 2. Hazard(s) identification

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Hazard statements</th>
<th>Prevention</th>
<th>Response</th>
<th>Storage</th>
<th>Disposal</th>
<th>Supplemental label elements</th>
<th>Additional warning phrases</th>
<th>Other hazards which do not result in classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td><strong>DANGER</strong></td>
<td>P280 - Wear protective gloves. Wear eye or face protection.</td>
<td>P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.</td>
<td>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.</td>
<td>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>None known.</td>
</tr>
<tr>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td><strong>WARNING</strong></td>
<td>P260 - Do not breathe vapour.</td>
<td>P280 - Wear protective gloves. Wear eye or face protection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 29/09/2021  
**Date of previous issue**: 16/05/2019  
**Version**: 8
Section 3. Composition and ingredient information

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Lithium chloride</td>
<td>≤12</td>
<td>7447-41-8</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Lithium dodecyl sulphate</td>
<td>≤6.4</td>
<td>2044-56-6</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>≤6.4</td>
<td>9002-93-1</td>
</tr>
<tr>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td>Trometamol</td>
<td>≥10 - &lt;20</td>
<td>77-86-1</td>
</tr>
</tbody>
</table>

There are no additional 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**
- **2X HI-RPM Hybridization Buffer**: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- **10X aCGH Blocking Agent, Lyophilized**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation**
- **2X HI-RPM Hybridization Buffer**: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- **10X aCGH Blocking Agent, Lyophilized**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such
Section 4. First aid measures

**Skin contact**: 2X HI-RPM Hybridization Buffer

Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

10X aCGH Blocking Agent, Lyophilized

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion**: 2X HI-RPM Hybridization Buffer

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Potential acute health effects**

- **Eye contact**: 2X HI-RPM Hybridization Buffer, 10X aCGH Blocking Agent, Lyophilized
  - Causes serious eye damage.
  - Causes serious eye irritation.

- **Inhalation**: 2X HI-RPM Hybridization Buffer, 10X aCGH Blocking Agent, Lyophilized
  - May cause respiratory irritation.
  - No known significant effects or critical hazards.
Section 4. First aid measures

**Skin contact**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

Causes skin irritation.

**Ingestion**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

Adverse symptoms may include the following:
- pain
- watering
- redness

**Inhalation**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

Adverse symptoms may include the following:
- respiratory tract irritation
- coughing

No specific data.

**Skin contact**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur

**Ingestion**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

Adverse symptoms may include the following:
- irritation
- redness

No specific data.

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

**Notes to physician**: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: 2X HI-RPM Hybridization Buffer
10X aCGH Blocking Agent, Lyophilized

No specific treatment.

**Protection of first-aiders**: 2X HI-RPM Hybridization Buffer
No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water.
Section 4. First aid measures

10X aCGH Blocking Agent, Lyophilized

before removing it, or wear gloves.
No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media: 2X HI-RPM Hybridization Buffer

Use an extinguishing agent suitable for the surrounding fire.

10X aCGH Blocking Agent, Lyophilized

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: 2X HI-RPM Hybridization Buffer

None known.

10X aCGH Blocking Agent, Lyophilized

None known.

Specific hazards arising from the chemical: 2X HI-RPM Hybridization Buffer

In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

10X aCGH Blocking Agent, Lyophilized

No specific fire or explosion hazard.

Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds
metal oxide/oxides

Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
phosphorus oxides
halogenated compounds

Special protective actions for fire-fighters: 2X HI-RPM Hybridization Buffer

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.

10X aCGH Blocking Agent, Lyophilized

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.

Special protective equipment for fire-fighters: 2X HI-RPM Hybridization Buffer

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

10X aCGH Blocking Agent, Lyophilized

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
- **2X HI-RPM Hybridization 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 spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- **10X aCGH Blocking Agent, Lyophilized**: 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 spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:
- **2X HI-RPM Hybridization Buffer**: If specialised 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".
- **10X aCGH Blocking Agent, Lyophilized**: If specialised 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:
- **2X HI-RPM Hybridization Buffer**: Avoid dispersal of spilt 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). Water polluting material. May be harmful to the environment if released in large quantities. Avoid dispersal of spilt 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).
- **10X aCGH Blocking Agent, Lyophilized**: Avoid dispersal of spilt 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 material for containment and cleaning up

Methods for cleaning up:
- **2X HI-RPM Hybridization 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.
- **10X aCGH Blocking Agent, Lyophilized**: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures:
- **2X HI-RPM Hybridization Buffer**: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made
Section 7. Handling and storage

Advice on general occupational hygiene

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.

Conditions for safe storage, including any incompatibilities

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. Store locked up. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>DFG MAC-values list (Germany, 8/2020).</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>TWA: 0.2 mg/m³, (as Li) 8 hours. Form: inhalable fraction</td>
</tr>
<tr>
<td></td>
<td>PEAK: 0.2 mg/m³, (as Li), 4 times per shift, 15 minutes. Form: inhalable fraction</td>
</tr>
</tbody>
</table>
Section 8. Exposure controls and personal protection

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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: chemical splash goggles.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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.

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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state: 2X HI-RPM Hybridization Buffer 10X aCGH Blocking Agent, Lyophilized Liquid.

Colour: 2X HI-RPM Hybridization Buffer 10X aCGH Blocking Agent, Lyophilized Not available.

Odour: 2X HI-RPM Hybridization Buffer 10X aCGH Blocking Agent, Lyophilized Not available.
Section 9. Physical and chemical properties and safety characteristics

**Odour threshold**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**pH**
- 2X HI-RPM Hybridization Buffer: 6.1
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**Melting point/freezing point**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**Boiling point, initial boiling point, and boiling range**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**Flash point**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Closed cup</th>
<th>Open cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>&gt;109.85°C</td>
<td>&gt;229.7°F</td>
</tr>
</tbody>
</table>

**Evaporation rate**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**Flammability**
- 2X HI-RPM Hybridization Buffer: Not applicable.
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**Lower and upper explosion limit/flammability limit**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not applicable.

**Vapour pressure**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Vapour Pressure at 20°C</th>
<th>Vapour pressure at 50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>mm Hg</td>
<td>kPa</td>
</tr>
<tr>
<td>Water</td>
<td>23.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>&lt;1</td>
<td>&lt;0.13</td>
</tr>
</tbody>
</table>

**Relative vapour density**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not applicable.

**Relative density**
- 2X HI-RPM Hybridization Buffer: Not available.
- 10X aCGH Blocking Agent, Lyophilized: Not available.

**Solubility**
- 2X HI-RPM Hybridization Buffer: Soluble in the following materials: cold water and hot water.
- 10X aCGH Blocking Agent, Lyophilized: Soluble in the following materials: cold water and hot water.

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Section 9. Physical and chemical properties and safety characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Ingredient name</th>
<th>°C</th>
<th>°F</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>Lithium dodecyl sulphate</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td>Particle characteristics</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Median particle size</td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
<td></td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Ingredient name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
</tr>
<tr>
<td>Chemical stability</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td></td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td></td>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>
## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X HI-RPM Hybridization Buffer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat - Male, Female</td>
<td>&gt;5.57 mg/l</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1629 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>1488 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>526 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1800 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Lithium dodecyl sulphate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>10X aCGH Blocking Agent, Lyophilized</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trometamol</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

#### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X HI-RPM Hybridization Buffer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 uL</td>
<td>-</td>
</tr>
<tr>
<td><strong>10X aCGH Blocking Agent, Lyophilized</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trometamol</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>25 %</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Sensitisation

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)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2X HI-RPM Hybridization Buffer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Lithium dodecyl sulphate</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td><strong>10X aCGH Blocking Agent, Lyophilized</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Section 11. Toxicological information

Information on likely routes of exposure

**Inhalation**
- 2X HI-RPM Hybridization Buffer: May cause respiratory irritation.
- 10X aCGH Blocking Agent, Lyophilized: No known significant effects or critical hazards.

**Ingestion**
- 2X HI-RPM Hybridization Buffer: Causes skin irritation.
- 10X aCGH Blocking Agent, Lyophilized: No known significant effects or critical hazards.

**Skin contact**
- 2X HI-RPM Hybridization Buffer: Causes skin irritation.
- 10X aCGH Blocking Agent, Lyophilized: Causes skin irritation.

Potential acute health effects

**Eye contact**
- 2X HI-RPM Hybridization Buffer: Causes serious eye damage.
- 10X aCGH Blocking Agent, Lyophilized: Causes serious eye irritation.

**Inhalation**
- 2X HI-RPM Hybridization Buffer: May cause respiratory irritation.
- 10X aCGH Blocking Agent, Lyophilized: No known significant effects or critical hazards.

**Skin contact**
- 2X HI-RPM Hybridization Buffer: Causes skin irritation.
- 10X aCGH Blocking Agent, Lyophilized: Causes skin irritation.

**Ingestion**
- 2X HI-RPM Hybridization Buffer: No known significant effects or critical hazards.
- 10X aCGH Blocking Agent, Lyophilized: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**
- 2X HI-RPM Hybridization Buffer: Adverse symptoms may include the following:
  - pain
  - watering
  - redness
- 10X aCGH Blocking Agent, Lyophilized: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness

**Inhalation**
- 2X HI-RPM Hybridization Buffer: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
- 10X aCGH Blocking Agent, Lyophilized: No specific data.
Section 11. Toxicological information

Skin contact: 2X HI-RPM Hybridization Buffer
Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur

10X aCGH Blocking Agent, Lyophilized
Adverse symptoms may include the following:
- irritation
- redness

Ingestion: 2X HI-RPM Hybridization Buffer
Adverse symptoms may include the following:
- stomach pains

10X aCGH Blocking Agent, Lyophilized
No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Long term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects
General: 2X HI-RPM Hybridization Buffer
May cause damage to organs through prolonged or repeated exposure.
10X aCGH Blocking Agent, Lyophilized
No known significant effects or critical hazards.

Carcinogenicity: 2X HI-RPM Hybridization Buffer
No known significant effects or critical hazards.
10X aCGH Blocking Agent, Lyophilized
No known significant effects or critical hazards.

Mutagenicity: 2X HI-RPM Hybridization Buffer
No known significant effects or critical hazards.
10X aCGH Blocking Agent, Lyophilized
No known significant effects or critical hazards.

Reproductive toxicity: 2X HI-RPM Hybridization Buffer
No known significant effects or critical hazards.
10X aCGH Blocking Agent, Lyophilized
No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapours) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>2598.7</td>
<td>10804.4</td>
<td>N/A</td>
<td>565.6</td>
<td>23.1</td>
</tr>
<tr>
<td>10X aCGH Blocking Agent, Lyophilized</td>
<td>526 1800</td>
<td>1488 500</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>500</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>5900</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Lithium dodecyl sulphate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trometamol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Section 11. Toxicological information

Other information:
- 2X HI-RPM Hybridization Buffer
- 10X aCGH Blocking Agent, Lyophilized

Adverse symptoms may include the following:
- May cause skin sensitisation.
- Not available.

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Lithium chloride</td>
<td>Acute EC50 112 mg/l Fresh water</td>
<td>Algae - Desmodesmus subspicatus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute EC50 249 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute LC50 17000 μg/l Fresh water</td>
<td>Fish - Ptychocheilus lucius - Swim-up</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute NOEC 25 mg/l Fresh water</td>
<td>Algae - Desmodesmus subspicatus</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>Acute NOEC 63.4 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute NOEC 59.4 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute LC50 5.85 mg/l Fresh water</td>
<td>Crustaceans - Ceriodaphnia rigaudi - Neonate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute LC50 11.2 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute LC50 4500 μg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
</tr>
<tr>
<td>10X aCGH Blocking Agent, Lyophilized Trometamol</td>
<td>Acute EC50 &gt;980 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute NOEC 520 mg/l Fresh water</td>
<td>Daphnia</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Lithium chloride</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Lithium dodecyl sulphate</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>4.86</td>
<td>-</td>
</tr>
<tr>
<td>10X aCGH Blocking Agent, Lyophilized Trometamol</td>
<td>-2.31</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.
Section 12. Ecological information

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimised 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA: Not regulated as Dangerous Goods according to the ADG Code.

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 IMO instruments: Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons
Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances
No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Montreal Protocol
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia: Not determined.
Canada: Not determined.
China: Not determined.
Europe: Not determined.
Japan:
  - Japan inventory (CSCL): Not determined.
  - Japan inventory (ISHL): Not determined.
New Zealand: Not determined.

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Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Republic of Korea</th>
<th>Not determined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Section 16. Any other relevant information

**History**

<table>
<thead>
<tr>
<th>Date of issue/Date of revision</th>
<th>29/09/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of previous issue</td>
<td>16/05/2019</td>
</tr>
<tr>
<td>Version</td>
<td>8</td>
</tr>
</tbody>
</table>

**Key to abbreviations**

- ADG = Australian Dangerous Goods
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonised System of Classification and Labelling of Chemicals
- 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
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

**Procedure used to derive the classification**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

| 10X aCGH Blocking Agent, Lyophilized | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A | Calculation method |

**References**

- Not available.

**Indicates information that has changed from previously issued version.**

**Notice to reader**

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