SAFETY DATA SHEET
Custom Hybridization Kit, Part Number 930013

Section 1. Identification

Product identifier : Custom Hybridization Kit, Part Number 930013
Part No. (Chemical Kit) : 930013
Part No. : 10X aCGH Blocking Agent 5188-6416
  2X HI-RPM Hybridization Buffer 5188-6417

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

Analytical reagent.

10X aCGH Blocking Agent
25 Hybs lyophilised pellets
2X HI-RPM Hybridization Buffer
1.4 ml

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

10X aCGH Blocking Agent
- H315 SKIN CORROSION/IRRITATION - Category 2
- H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

2X HI-RPM Hybridization Buffer
- H315 SKIN CORROSION/IRRITATION - Category 2
- H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
- H402 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity:
- 10X aCGH Blocking Agent: 1 - 10%
- 2X HI-RPM Hybridization Buffer: 10 - 30%

Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity:
- 10X aCGH Blocking Agent: > 60%
- 2X HI-RPM Hybridization Buffer: 10 - 30%

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity:
- 10X aCGH Blocking Agent: 1 - 10%
- 2X HI-RPM Hybridization Buffer: 1 - 10%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment:
- 10X aCGH Blocking Agent: 5.7%
- 2X HI-RPM Hybridization Buffer: 9.4%

GHS label elements

Date of issue/Date of revision : 29/08/2017
Date of previous issue : 28/08/2015
Version : 2
Section 2. Hazard(s) identification

Hazard pictograms

10X aCGH Blocking Agent

⚠️

2X HI-RPM Hybridization Buffer

⚠️

Signal word

10X aCGH Blocking Agent

WARNING

2X HI-RPM Hybridization Buffer

DANGER

Hazard statements

10X aCGH Blocking Agent

H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

2X HI-RPM Hybridization Buffer

H318 - Causes serious eye damage.

H315 - Causes skin irritation.

H402 - Harmful to aquatic life.

Precautionary statements

Prevention

10X aCGH Blocking Agent

P280 - Wear protective gloves. Wear eye or face protection.

P264 - Wash hands thoroughly after handling.

2X HI-RPM Hybridization Buffer

P280 - Wear protective gloves. Wear eye or face protection.

P273 - Avoid release to the environment.

P264 - Wash hands thoroughly after handling.

Response

10X aCGH Blocking Agent

P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.

2X HI-RPM Hybridization Buffer

P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention.

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 physician.

Storage

10X aCGH Blocking Agent

Not applicable.

2X HI-RPM Hybridization Buffer

Not applicable.

Disposal

10X aCGH Blocking Agent

Not applicable.

2X HI-RPM Hybridization Buffer

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

10X aCGH Blocking Agent

Not applicable.

2X HI-RPM Hybridization Buffer

Not applicable.

Other hazards which do not result in classification

10X aCGH Blocking Agent

None known.

2X HI-RPM Hybridization Buffer

None known.
Section 3. Composition and ingredient information

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>&lt;10</td>
<td>77-86-1</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>≤8.7</td>
<td>145224-94-8</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>&lt;10</td>
<td>1185-53-1</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>≤7.1</td>
<td>7447-41-8</td>
</tr>
<tr>
<td>Lithium dodecyl sulphate</td>
<td>≤4.1</td>
<td>2044-56-6</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>≤2.3</td>
<td>9002-93-1</td>
</tr>
<tr>
<td>Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[ (trimethylsilyl)oxy]-1-disiloxany]propyl] ether</td>
<td>≤1.7</td>
<td>134180-76-0</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**: 10X aCGH Blocking Agent
  - 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.
  - 2X HI-RPM Hybridization Buffer
  - 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.

- **Inhalation**: 10X aCGH Blocking Agent
  - 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 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 KEEPT UNDER MEDICAL SURVEILLANCE FOR 48 HOURS.
  - 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 RESCUEUR 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...
Section 4. First aid measures

Skin contact:

10X aCGH Blocking Agent
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.

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.

Ingestion:

10X aCGH Blocking Agent
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

2X HI-RPM Hybridization Buffer
Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact:

10X aCGH Blocking Agent
Causes serious eye irritation.

2X HI-RPM Hybridization Buffer
Causes serious eye damage.
## Section 4. First aid measures

### Inhalation
- **10X aCGH Blocking Agent**
- **2X HI-RPM Hybridization Buffer**
  - No known significant effects or critical hazards.

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

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

### Over-exposure signs/symptoms

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

#### Inhalation
- **10X aCGH Blocking Agent**
  - No specific data.
- **2X HI-RPM Hybridization Buffer**
  - No specific data.

#### Skin contact
- **10X aCGH Blocking Agent**
  - Adverse symptoms may include the following:
    - irritation
    - redness
- **2X HI-RPM Hybridization Buffer**
  - Adverse symptoms may include the following:
    - pain or irritation
    - redness
    - blistering may occur

#### Ingestion
- **10X aCGH Blocking Agent**
  - No specific data.
- **2X HI-RPM Hybridization Buffer**
  - Adverse symptoms may include the following:
    - stomach pains

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

#### Notes to physician
- **10X aCGH Blocking Agent**
  - 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.
- **2X HI-RPM Hybridization Buffer**
  - 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
- **10X aCGH Blocking Agent**
  - No specific treatment.
- **2X HI-RPM Hybridization Buffer**
  - No specific treatment.

#### Protection of first-aiders
- **10X aCGH Blocking Agent**
  - 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- **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 before removing it, or wear gloves.
### Section 4. First aid measures

See toxicological information (Section 11)

### Section 5. Firefighting measures

#### Extinguishing media

| Suitable extinguishing media | 10X aCGH Blocking Agent | Use an extinguishing agent suitable for the surrounding fire. |
| 2X HI-RPM Hybridization Buffer | Use an extinguishing agent suitable for the surrounding fire. |

| Unsuitable extinguishing media | 10X aCGH Blocking Agent | None known. |
| 2X HI-RPM Hybridization Buffer | None known. |

#### Specific hazards arising from the chemical

**10X aCGH Blocking Agent**

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

**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. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

#### Hazardous thermal decomposition products

**10X aCGH Blocking Agent**

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

**2X HI-RPM Hybridization Buffer**

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

#### Special protective actions for fire-fighters

**10X aCGH Blocking Agent**

- 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.

**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.

#### Special protective equipment for fire-fighters

**10X aCGH Blocking Agent**

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

**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.

### Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Section 6. Accidental release measures

### For non-emergency personnel

<table>
<thead>
<tr>
<th>Product</th>
<th>Environmental Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>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).</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>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.</td>
</tr>
</tbody>
</table>

### For emergency responders

<table>
<thead>
<tr>
<th>Product</th>
<th>Environmental Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
</tbody>
</table>

### Environmental precautions

<table>
<thead>
<tr>
<th>Product</th>
<th>Environmental Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>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.</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Methods and material for containment and cleaning up

#### Methods for cleaning up

<table>
<thead>
<tr>
<th>Product</th>
<th>Methods for cleaning up</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>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.</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>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.</td>
</tr>
</tbody>
</table>

Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

<table>
<thead>
<tr>
<th>Product</th>
<th>Precautions for safe handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or</td>
</tr>
</tbody>
</table>
Section 7. Handling and storage

Advice on general occupational hygiene:

10X aCGH Blocking Agent

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.

2X HI-RPM Hybridization Buffer

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:

10X aCGH Blocking Agent

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

2X HI-RPM Hybridization Buffer

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, 7/2015). TWA: 0.2 mg/m³, (as Li) 8 hours. Form: Inhalable fraction</td>
</tr>
<tr>
<td>Lithium chloride</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: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. 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

Appearance

Physical state: 10X aCGH Blocking Agent Solid. [lyophilised pellets] 2X HI-RPM Hybridization Buffer Liquid.

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

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

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

pH: 10X aCGH Blocking Agent Not available. 2X HI-RPM Hybridization Buffer 6.1
### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>10X aCGH Blocking Agent</th>
<th>2X HI-RPM Hybridization Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in the following materials: cold water and hot water.</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

### Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>10X aCGH Blocking Agent</th>
<th>2X HI-RPM Hybridization Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>
Section 10. Stability and reactivity

**Conditions to avoid**
- 10X aCGH Blocking Agent
- 2X HI-RPM Hybridization Buffer

**Incompatible materials**
- 10X aCGH Blocking Agent
- 2X HI-RPM Hybridization Buffer

**Hazardous decomposition products**
- 10X aCGH Blocking Agent
- 2X HI-RPM Hybridization Buffer

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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>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1629 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>1488 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>526 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1629 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Lithium dodecyl sulphate</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>1488 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>1.08 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>Oxiylene, 2-methyl-, polymer with oxirane, mono[3-{1,3,3,3-tetramethyl-1-[ (trimethylsilyl)oxy]-1-disiloxanyl}[propyl] ether</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>1550 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3200 mg/kg</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>10X aCGH Blocking Agent</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>25 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 10 microliters</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 microliters</td>
<td>-</td>
</tr>
<tr>
<td>Oxiylene, 2-methyl-, polymer with oxirane, mono[3-{1,3,3,3-tetramethyl-1-[</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

### Sensitisation

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td>skin</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
</tr>
</tbody>
</table>

### Carcinogenicity

Not available.

### Mutagenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

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>10X aCGH Blocking Agent Trometamol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer 4-Morpholineethanesulfonic acid, hydrate (1:1)</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Lithium dodecyl sulphate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

### Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer Lithium chloride</td>
<td>Category 2</td>
<td>Oral</td>
<td>central nervous system (CNS)</td>
</tr>
</tbody>
</table>

### Aspiration hazard

Not available.

### Information on likely routes of exposure

- 10X aCGH Blocking Agent
- 2X HI-RPM Hybridization Buffer

Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

- Eyes - Severe irritant
- Rabbit - 

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## Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Agent 1</th>
<th>Agent 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>Causes serious eye irritation.</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>Causes skin irritation.</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Symptoms related to the physical, chemical and toxicological characteristics**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Agent 1</th>
<th>Agent 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>Adverse symptoms may include the following:</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td></td>
<td>pain or irritation</td>
<td>pain</td>
</tr>
<tr>
<td></td>
<td>watering</td>
<td>watering</td>
</tr>
<tr>
<td></td>
<td>redness</td>
<td>redness</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>Adverse symptoms may include the following:</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td></td>
<td>irritation</td>
<td>pain or irritation</td>
</tr>
<tr>
<td></td>
<td>redness</td>
<td>redness</td>
</tr>
<tr>
<td></td>
<td>blistering may occur</td>
<td>blistering may occur</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>10X aCGH Blocking Agent</td>
<td>2X HI-RPM Hybridization Buffer</td>
</tr>
<tr>
<td></td>
<td>No specific data.</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stomach pains</td>
</tr>
</tbody>
</table>

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

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

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

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

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

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X HI-RPM Hybridization Buffer</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>9093.4 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>19854.9 mg/kg</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>60.05 mg/l</td>
</tr>
</tbody>
</table>

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>10X aCGH Blocking Agent</td>
<td>Acute EC50 &gt;980 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute NOEC 520 mg/l Fresh water</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>Trometamol</td>
<td>Acute LC50 22000 μg/l Fresh water</td>
<td>Fish - Gila elegans - Swim-up</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5.85 mg/l Fresh water</td>
<td>Crustaceans - Ceriodaphnia rigaudi - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 11.2 mg/l Fresh water</td>
<td>Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 4500 μg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>EC50 28.2 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>EC50 1.1 mg/l</td>
<td>Daphnia</td>
<td>48 hours</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>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>Polyoxyethylene octyl phenyl ether</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

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<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X aCGH Blocking Agent Trometamol</td>
<td>-1.56</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2X HI-RPM Hybridization Buffer Polyoxyethylene octyl phenyl ether</td>
<td>4.86</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

**Mobility in soil**

- Soil/water partition coefficient (K<sub>OC</sub>): 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 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 Annex II of Marpol and the IBC Code**

Not available.

Section 15. Regulatory information

**Standard Uniform Schedule of Medicine 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 (Annexes A, B, C, E)**
  - Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**
  - Not listed.
Section 15. Regulatory information

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

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

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

Section 16. Any other relevant information

History
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Key to abbreviations
- ADG = Australian Dangerous Goods
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized 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
- NOHSC = National Occupational Health and Safety Commission
- 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><strong>10X aCGH Blocking Agent</strong></td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td></td>
</tr>
<tr>
<td><strong>2X HI-RPM Hybridization Buffer</strong></td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td>Aquatic Acute 3, H402</td>
<td></td>
</tr>
</tbody>
</table>

References
- Not available.

Indicates information that has changed from previously issued version.
Notice to reader

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