

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

10X aCGH Blocking Agent	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: > 60%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
2X HI-RPM Hybridization Buffer	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
10X aCGH Blocking Agent	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.7%
2X HI-RPM Hybridization Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 9.4%

GHS label elements

Section 2. Hazard(s) identification

Hazard pictograms	: 10X aCGH Blocking Agent	
	2X HI-RPM Hybridization Buffer	
Signal word	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	WARNING DANGER
Hazard statements	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	H319 - Causes serious eye irritation. H315 - Causes skin irritation. H318 - Causes serious eye damage. H315 - Causes skin irritation. H402 - Harmful to aquatic life.
Precautionary statements		
Prevention	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash hands thoroughly after handling. 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 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 - 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. 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 2X HI-RPM Hybridization Buffer	Not applicable. Not applicable.
Disposal	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Not applicable. Not applicable.
Other hazards which do not result in classification	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	None known. None known.

Section 3. Composition and ingredient information

Substance/mixture : 10X aCGH Blocking Agent Mixture
2X HI-RPM Hybridization Mixture
Buffer

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
10X aCGH Blocking Agent		
Trometamol	<10	77-86-1
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	<10	1185-53-1
2X HI-RPM Hybridization Buffer		
4-Morpholineethanesulfonic acid, hydrate (1:1)	≤8.7	145224-94-8
Lithium chloride	≤7.1	7447-41-8
Lithium dodecyl sulphate	≤4.1	2044-56-6
Polyoxyethylene octyl phenyl ether	≤2.3	9002-93-1
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-(trimethylsilyloxy)-1-disiloxanyl]propyl] ether	≤1.7	134180-76-0

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	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.
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 kept 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 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

Section 4. First aid measures

		<p>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.</p>
Skin contact	<p>: 10X aCGH Blocking Agent</p> <p>2X HI-RPM Hybridization Buffer</p>	<p>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.</p> <p>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.</p>
Ingestion	<p>: 10X aCGH Blocking Agent</p> <p>2X HI-RPM Hybridization Buffer</p>	<p>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.</p> <p>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.</p>

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	<p>: 10X aCGH Blocking Agent</p> <p>2X HI-RPM Hybridization Buffer</p>	<p>Causes serious eye irritation.</p> <p>Causes serious eye damage.</p>
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Section 4. First aid measures

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

Over-exposure signs/symptoms

Eye contact	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain watering redness
Inhalation	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific data. No specific data.
Skin contact	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific data. 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 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. 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 2X HI-RPM Hybridization Buffer	No specific treatment. No specific treatment.
Protection of first-aiders	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	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. 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 2X HI-RPM Hybridization Buffer	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	None known. None known.
Specific hazards arising from the chemical	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific fire or explosion hazard. 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 2X HI-RPM Hybridization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides halogenated compounds 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 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. 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 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. 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	: 10X aCGH Blocking Agent	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.
	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.
For emergency responders	: 10X aCGH Blocking Agent	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".
	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".
Environmental precautions	: 10X aCGH Blocking Agent	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).
	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.
<u>Methods and material for containment and cleaning up</u>		
Methods for cleaning up	: 10X aCGH Blocking Agent	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.
	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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: 10X aCGH Blocking Agent	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.
	2X HI-RPM Hybridization Buffer	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or

Section 7. Handling and storage

clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

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

Ingredient name	Exposure limits
<p>2X HI-RPM Hybridization Buffer Lithium chloride</p>	<p>DFG MAC-values list (Germany, 7/2015). TWA: 0.2 mg/m³, (as Li) 8 hours. Form: Inhalable fraction PEAK: 0.2 mg/m³, (as Li), 4 times per shift, 15 minutes. Form: Inhalable fraction</p>

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 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

Appearance

Physical state	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Solid. [lyophilised pellets] Liquid.
Colour	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Not available. Not available.
Odour	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Not available. Not available.
Odour threshold	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Not available. Not available.
pH	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Not available. 6.1

Section 9. Physical and chemical properties

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

Section 10. Stability and reactivity

Reactivity	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	The product is stable. The product is stable.
Possibility of hazardous reactions	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific data. No specific data.
Incompatible materials	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
10X aCGH Blocking Agent Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
2X HI-RPM Hybridization Buffer Lithium chloride	LD50 Dermal	Rabbit	1629 mg/kg	-
	LD50 Dermal	Rat	1488 mg/kg	-
	LD50 Oral	Rat	526 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	1800 mg/kg	-
Lithium dodecyl sulphate	LD50 Oral	Rat	>5000 mg/kg	-
Polyoxyethylene octyl phenyl ether	LD50 Oral	Rat	1800 mg/kg	-
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-(trimethylsilyloxy)-1-disiloxanyl]propyl] ether	LC50 Inhalation Dusts and mists	Rat	1.08 mg/l	4 hours
	LD50 Dermal	Rabbit	1550 mg/kg	-
	LD50 Oral	Rat	3200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
10X aCGH Blocking Agent Trometamol	Skin - Moderate irritant	Rabbit	-	25 Percent 500 milligrams	-
	Skin - Severe irritant	Rabbit	-		-
2X HI-RPM Hybridization Buffer Lithium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
Polyoxyethylene octyl phenyl ether	Eyes - Moderate irritant	Rabbit	-	24 hours 10 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-	Skin - Mild irritant	Rabbit	-	-	-

Section 11. Toxicological information

(trimethylsilyl)oxy]-1-disiloxanyl]propyl] ether	Eyes - Severe irritant	Rabbit	-	-	-
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Sensitisation

Product/ingredient name	Route of exposure	Species	Result
2X HI-RPM Hybridization Buffer Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]-1-disiloxanyl]propyl] ether	skin	Guinea pig	Not sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
10X aCGH Blocking Agent Trometamol	Category 3	Not applicable.	Respiratory tract irritation
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
2X HI-RPM Hybridization Buffer 4-Morpholineethanesulfonic acid, hydrate (1:1)	Category 3	Not applicable.	Respiratory tract irritation
Lithium chloride	Category 3	Not applicable.	Respiratory tract irritation
Lithium dodecyl sulphate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2X HI-RPM Hybridization Buffer Lithium chloride	Category 2	Oral	central nervous system (CNS)

Aspiration hazard

Not available.

Information on likely routes of exposure : 10X aCGH Blocking Agent Routes of entry anticipated: Oral, Dermal, Inhalation.
2X HI-RPM Hybridization Buffer Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Causes serious eye irritation. Causes serious eye damage.
Inhalation	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Causes skin irritation. Causes skin irritation.
Ingestion	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain watering redness
Inhalation	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific data. No specific data.
Skin contact	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: 10X aCGH Blocking Agent 2X HI-RPM Hybridization Buffer	No specific data. Adverse symptoms may include the following: stomach pains

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

Not available.

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

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

Section 11. Toxicological information

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

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
2X HI-RPM Hybridization Buffer Oral Dermal Inhalation (dusts and mists)	9093.4 mg/kg 19854.9 mg/kg 60.05 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
10X aCGH Blocking Agent Trometamol	Acute EC50 >980 mg/l Fresh water Acute NOEC 520 mg/l Fresh water	Daphnia Daphnia	48 hours 48 hours
2X HI-RPM Hybridization Buffer Lithium chloride Polyoxyethylene octyl phenyl ether	Acute LC50 22000 µg/l Fresh water Acute LC50 5.85 mg/l Fresh water Acute LC50 11.2 mg/l Fresh water	Fish - Gila elegans - Swim-up Crustaceans - Ceriodaphnia rigaudi - Neonate Daphnia - Daphnia magna - Neonate	96 hours 48 hours 48 hours
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-(trimethylsilyloxy)-1-disiloxanyl]propyl] ether	Acute LC50 4500 µg/l Fresh water EC50 28.2 mg/l EC50 1.1 mg/l	Fish - Pimephales promelas Algae Daphnia	96 hours 72 hours 48 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2X HI-RPM Hybridization Buffer Lithium chloride Polyoxyethylene octyl phenyl ether	- -	- -	Readily Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
10X aCGH Blocking Agent Trometamol	-1.56	-	low
2X HI-RPM Hybridization Buffer Polyoxyethylene octyl phenyl ether	4.86	-	high

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 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

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: Not determined.
Japan	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> Not determined.
Turkey	: <input checked="" type="checkbox"/> Not determined.
United States	: <input checked="" type="checkbox"/> Not determined.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 29/08/2017

Date of previous issue : 28/08/2015.

Version : 2

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
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NOHSC = National Occupational Health and Safety Commission
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> 10X aCGH Blocking Agent Skin Irrit. 2, H315 Eye Irrit. 2A, H319	Calculation method Calculation method
2X HI-RPM Hybridization Buffer Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 3, H402	Calculation method Calculation method Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Section 16. Any other relevant information

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