

SAFETY DATA SHEET



GenetiSure Dx Hybridization Kit, Part Number K1201-64200

Section 1. Identification

Product identifier : GenetiSure Dx Hybridization Kit, Part Number K1201-64200
Part No. (Chemical Kit) : K1201-64200
Part No. : 2X CGH Hybridization Buffer 5190-7320
 10X Oligo aCGH Blocking Agent 5190-7319
 Lyophilized

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

For In Vitro Diagnostic Use

2X CGH Hybridization Buffer 1.4 ml
 10X Oligo aCGH Blocking Agent Lyophilized RCNS X 1.35 ml water

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 CGH Hybridization Buffer

H315 SKIN CORROSION/IRRITATION - Category 2
 H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
 H402 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3



10X Oligo aCGH Blocking Agent Lyophilized

H315 SKIN CORROSION/IRRITATION - Category 2
 H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
 H335 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

<input checked="" type="checkbox"/> 2X CGH 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 Oligo aCGH Blocking Agent Lyophilized	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 30 - 60% 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: 30 - 60%
<input checked="" type="checkbox"/> 2X CGH Hybridization Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 6.4%
10X Oligo aCGH Blocking Agent Lyophilized	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 34.4%

GHS label elements

Section 2. Hazard(s) identification

Hazard pictograms	: <input checked="" type="checkbox"/> CGH Hybridization Buffer 
	10X Oligo aCGH Blocking Agent Lyophilized 
Signal word	: <input checked="" type="checkbox"/> CGH Hybridization Buffer WARNING 10X Oligo aCGH Blocking Agent Lyophilized WARNING
Hazard statements	: <input checked="" type="checkbox"/> CGH Hybridization Buffer H319 - Causes serious eye irritation. H315 - Causes skin irritation. H402 - Harmful to aquatic life. 10X Oligo aCGH Blocking Agent Lyophilized H319 - Causes serious eye irritation. H315 - Causes skin irritation. H335 - May cause respiratory irritation.
<u>Precautionary statements</u>	
Prevention	: <input checked="" type="checkbox"/> CGH Hybridization Buffer P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P264 - Wash hands thoroughly after handling. 10X Oligo aCGH Blocking Agent Lyophilized P280 - Wear protective gloves. Wear eye or face protection. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing dust. P264 - Wash hands thoroughly after handling.
Response	: <input checked="" type="checkbox"/> CGH 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. 10X Oligo aCGH Blocking Agent Lyophilized P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. 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.
Storage	: 2X CGH Hybridization Buffer Not applicable. 10X Oligo aCGH Blocking Agent Lyophilized P405 - Store locked up.

Section 2. Hazard(s) identification

Disposal : CGH Hybridization Buffer P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
 10X Oligo aCGH Blocking Agent Lyophilized P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Additional warning phrases : 2X CGH Hybridization Buffer Not applicable.
 10X Oligo aCGH Blocking Agent Lyophilized Not applicable.

Other hazards which do not result in classification : 2X CGH Hybridization Buffer None known.
 10X Oligo aCGH Blocking Agent Lyophilized None known.

Section 3. Composition and ingredient information

Substance/mixture : 2X CGH Hybridization Buffer Mixture
 10X Oligo aCGH Blocking Agent Lyophilized Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<input checked="" type="checkbox"/> CGH Hybridization Buffer		
4-Morpholineethanesulfonic acid, hydrate (1:1)	≤8.7	145224-94-8
Lithium chloride	≤7.1	7447-41-8
Polyoxyethylene octyl phenyl ether	≤2	9002-93-1
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-(trimethylsilyloxy)-1-disiloxanyl]propyl] ether	≤1.5	134180-76-0
10X Oligo aCGH Blocking Agent Lyophilized		
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≥30 - ≤60	1185-53-1

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 : CGH 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. Get medical attention.
 10X Oligo 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 : CGH Hybridization Buffer 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

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 Oligo aCGH Blocking Agent Lyophilized

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. Get medical attention. If necessary, call a poison center or physician. 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.

Skin contact

: CGH Hybridization Buffer

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.

10X Oligo 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

: CGH Hybridization Buffer

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.

10X Oligo aCGH Blocking Agent Lyophilized

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,

Section 4. First aid measures

belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	Causes serious eye irritation. Causes serious eye irritation.
Inhalation	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. May cause respiratory irritation.
Skin contact	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	Causes skin irritation. Causes skin irritation.
Ingestion	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: irritation redness
Ingestion	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No specific data. No specific data.

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

Notes to physician	: 2X CGH Hybridization Buffer 10X Oligo 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. 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 CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No specific treatment. No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: <input checked="" type="checkbox"/> CGH 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.
	10X Oligo aCGH Blocking Agent Lyophilized	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.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: 2X CGH Hybridization Buffer	Use an extinguishing agent suitable for the surrounding fire.
	10X Oligo aCGH Blocking Agent Lyophilized	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 2X CGH Hybridization Buffer	None known.
	10X Oligo aCGH Blocking Agent Lyophilized	None known.

Specific hazards arising from the chemical

: <input checked="" type="checkbox"/> CGH 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.
10X Oligo aCGH Blocking Agent Lyophilized	No specific fire or explosion hazard.

Hazardous thermal decomposition products

: <input checked="" type="checkbox"/> CGH Hybridization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
10X Oligo aCGH Blocking Agent Lyophilized	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides halogenated compounds

Special protective actions for fire-fighters

: 2X CGH 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 Oligo 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.

Section 5. Firefighting measures

Special protective equipment for fire-fighters	: 2X CGH 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 Oligo 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	: <input checked="" type="checkbox"/> 2X CGH 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	10X Oligo 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 CGH 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 Oligo 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	: <input checked="" type="checkbox"/> 2X CGH 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.
	10X Oligo 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 CGH 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 Oligo 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	: <input checked="" type="checkbox"/> 2X CGH Hybridization Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. 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.
	10X Oligo aCGH Blocking Agent Lyophilized	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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	: 2X CGH 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.
	10X Oligo aCGH Blocking Agent Lyophilized	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	: <input checked="" type="checkbox"/> 2X CGH 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. 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.
	10X Oligo aCGH Blocking Agent Lyophilized	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
2X CGH Hybridization Buffer Lithium chloride	DFG MAC-values list (Germany, 7/2015). TWA: 0.2 mg/m ³ , (as Li) 8 hours. Form: Inhalable fraction PEAK: 0.2 mg/m ³ , (as Li), 4 times per shift, 15 minutes. Form: Inhalable fraction

- Appropriate engineering controls** : Use only with adequate ventilation. 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.
- 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	: 2X CGH Hybridization Buffer	Liquid.
	10X Oligo aCGH Blocking Agent Lyophilized	Solid. [lyophilised]
Colour	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Odour	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Odour threshold	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
pH	: 2X CGH Hybridization Buffer	6.1
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Melting point	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Boiling point	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Flash point	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Evaporation rate	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Flammability (solid, gas)	: 2X CGH Hybridization Buffer	Not applicable.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Lower and upper explosive (flammable) limits	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Vapour pressure	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Vapour density	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Relative density	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Solubility	: 2X CGH Hybridization Buffer	Soluble in the following materials: cold water.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Partition coefficient: n-octanol/water	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Auto-ignition temperature	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.
Decomposition temperature	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.

Section 9. Physical and chemical properties

Viscosity	: 2X CGH Hybridization Buffer	Not available.
	10X Oligo aCGH Blocking Agent Lyophilized	Not available.

Section 10. Stability and reactivity

Reactivity	: 2X CGH Hybridization Buffer	No specific test data related to reactivity available for this product or its ingredients.
	10X Oligo aCGH Blocking Agent Lyophilized	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: 2X CGH Hybridization Buffer	The product is stable.
	10X Oligo aCGH Blocking Agent Lyophilized	The product is stable.
Possibility of hazardous reactions	: 2X CGH Hybridization Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X Oligo aCGH Blocking Agent Lyophilized	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: 2X CGH Hybridization Buffer	No specific data.
	10X Oligo aCGH Blocking Agent Lyophilized	No specific data.
Incompatible materials	: 2X CGH Hybridization Buffer	May react or be incompatible with oxidising materials.
	10X Oligo aCGH Blocking Agent Lyophilized	May react or be incompatible with oxidising materials.
Hazardous decomposition products	: 2X CGH Hybridization Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X Oligo aCGH Blocking Agent Lyophilized	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
2X CGH Hybridization Buffer				
Lithium chloride	LD50 Dermal	Rabbit	1629 mg/kg	-
	LD50 Dermal	Rat	1488 mg/kg	-
	LD50 Oral	Rat	526 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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X CGH 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-(trimethylsilyloxy)-1-disiloxanyl]propyl] ether	Skin - Mild irritant	Rabbit	-	-	-
	Eyes - Severe irritant	Rabbit	-	-	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
2X CGH Hybridization Buffer Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-(trimethylsilyloxy)-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
2X CGH Hybridization Buffer 4-Morpholineethanesulfonic acid, hydrate (1:1)	Category 3	Not applicable.	Respiratory tract irritation
Lithium chloride	Category 3	Not applicable.	Respiratory tract irritation
10X Oligo aCGH Blocking Agent Lyophilized 10X Oligo aCGH Blocking Agent Lyophilized	Category 3	Not applicable.	Respiratory tract irritation
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

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

Aspiration hazard

Not available.

Information on likely routes of exposure : 2X CGH Hybridization Buffer Routes of entry anticipated: Oral, Dermal, Inhalation.
10X Oligo aCGH Blocking Agent Lyophilized Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : 2X CGH Hybridization Buffer Causes serious eye irritation.
10X Oligo aCGH Blocking Agent Lyophilized Causes serious eye irritation.

Inhalation : 2X CGH Hybridization Buffer No known significant effects or critical hazards.
10X Oligo aCGH Blocking Agent Lyophilized May cause respiratory irritation.

Skin contact : 2X CGH Hybridization Buffer Causes skin irritation.
10X Oligo aCGH Blocking Agent Lyophilized Causes skin irritation.

Ingestion : 2X CGH Hybridization Buffer No known significant effects or critical hazards.
10X Oligo aCGH Blocking Agent Lyophilized No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : 2X CGH Hybridization Buffer Adverse symptoms may include the following:
pain or irritation
watering
redness
10X Oligo aCGH Blocking Agent Lyophilized Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : 2X CGH Hybridization Buffer No specific data.
10X Oligo aCGH Blocking Agent Lyophilized Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : 2X CGH Hybridization Buffer Adverse symptoms may include the following:
irritation
redness
10X Oligo aCGH Blocking Agent Lyophilized Adverse symptoms may include the following:
irritation
redness

Ingestion : 2X CGH Hybridization Buffer No specific data.
10X Oligo 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.

Section 11. Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: 2X CGH Hybridization Buffer 10X Oligo aCGH Blocking Agent Lyophilized	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 CGH Hybridization Buffer	
Oral	5883.4 mg/kg
Dermal	19854.9 mg/kg
Inhalation (dusts and mists)	25.5 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2X CGH Hybridization Buffer			
Lithium chloride	Acute LC50 17000 µg/l Fresh water	Fish - Ptychocheilus lucius - Swim-up	96 hours
Polyoxyethylene octyl phenyl ether	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	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	Fish - Pimephales promelas Algae	96 hours 72 hours
	EC50 1.1 mg/l	Daphnia	48 hours

Persistence and degradability

Section 12. Ecological information

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2X CGH 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.

Section 15. Regulatory information

Montreal Protocol (Annexes A, B, C, E)

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	: <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 : 08/11/2017

Date of previous issue : 21/08/2015.

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

Section 16. Any other relevant information

Classification	Justification
2X CGH Hybridization Buffer Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute 3, H402	Calculation method Calculation method Calculation method
10X Oligo aCGH Blocking Agent Lyophilized Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335	Calculation method Calculation method Expert judgment

References : Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

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