

SAFETY DATA SHEET



Custom Enzymatic DNA Labeling Kit Bundle, Part Number 930946

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	: Custom Enzymatic DNA Labeling Kit Bundle, Part Number 930946	
Part No. (Kit)	: 930946	
Part No.	: 10X aCGH Blocking Agent	930946-15
	: Random Primers	930946-52
	: 5X Reaction Buffer	930946-54
	: 10X dNTP Mix	930946-51
	: Exo(-) Klenow	930948-53
	: Cyanine-3-dUTP	FP1475
	: Cyanine-5-dUTP	FP1476
	: 2X Hybridization Buffer	930946-14

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

Identified uses

Analytical reagent.	
10X aCGH Blocking Agent	0.7 ml (lyophilised)
Random Primers	0.7 ml
5X Reaction Buffer	1.5 ml
10X dNTP Mix	0.7 ml
Exo(-) Klenow	0.2 ml
Cyanine-3-dUTP	0.25 ml
Cyanine-5-dUTP	0.25 ml
2X Hybridization Buffer	2 x 1.5 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	: 10X aCGH Blocking Agent	Mixture
	: Random Primers	Mixture
	: 5X Reaction Buffer	Mixture
	: 10X dNTP Mix	Mixture
	: Exo(-) Klenow	Mixture
	: Cyanine-3-dUTP	Mixture
	: Cyanine-5-dUTP	Mixture

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SECTION 2: Hazards identification

2X Hybridization Buffer Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

10X aCGH Blocking Agent

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

2X Hybridization Buffer

H315	SKIN CORROSION/IRRITATION - Category 2
H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1

Ingredients of unknown toxicity	: 10X aCGH Blocking Agent	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%
	5X Reaction Buffer	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: 1 - 10%
		Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
	Exo(-) Klenow	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	2X 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%
Ingredients of unknown ecotoxicity	: 10X aCGH Blocking Agent	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 38.8%
	5X Reaction Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 3.5%
	2X Hybridization Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 9.4%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : 10X aCGH Blocking Agent



2X Hybridization Buffer



Signal word	: 10X aCGH Blocking Agent	Warning
	Random Primers	No signal word.
	5X Reaction Buffer	No signal word.
	10X dNTP Mix	No signal word.
	Exo(-) Klenow	No signal word.
	Cyanine-3-dUTP	No signal word.

SECTION 2: Hazards identification

Hazard statements	Cyanine-5-dUTP	No signal word.	
	2X Hybridization Buffer	Danger	
Hazard statements	: 10X aCGH Blocking Agent	H319 - Causes serious eye irritation. H315 - Causes skin irritation. H335 - May cause respiratory irritation.	
	Random Primers	No known significant effects or critical hazards.	
	5X Reaction Buffer	No known significant effects or critical hazards.	
	10X dNTP Mix	No known significant effects or critical hazards.	
	Exo(-) Klenow	No known significant effects or critical hazards.	
	Cyanine-3-dUTP	No known significant effects or critical hazards.	
	Cyanine-5-dUTP	No known significant effects or critical hazards.	
	2X Hybridization Buffer	H318 - Causes serious eye damage. H315 - Causes skin irritation.	
	Precautionary statements		
	Prevention	: 10X aCGH Blocking Agent	P280 - Wear protective gloves. Wear eye or face protection.
Random Primers		P261 - Avoid breathing dust.	
Response	5X Reaction Buffer	Not applicable.	
	10X dNTP Mix	Not applicable.	
	Exo(-) Klenow	Not applicable.	
	Cyanine-3-dUTP	Not applicable.	
	Cyanine-5-dUTP	Not applicable.	
	2X Hybridization Buffer	P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash hands thoroughly after handling.	
	: 10X aCGH Blocking Agent	P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.	
	Random Primers	Not applicable.	
	5X Reaction Buffer	Not applicable.	
	10X dNTP Mix	Not applicable.	
Exo(-) Klenow	Not applicable.		
Cyanine-3-dUTP	Not applicable.		
Cyanine-5-dUTP	Not applicable.		
2X Hybridization Buffer	P305 + P351 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Immediately call a POISON CENTER or physician.		
Storage	: 10X aCGH Blocking Agent	P405 - Store locked up.	
	Random Primers	Not applicable.	
Disposal	5X Reaction Buffer	Not applicable.	
	10X dNTP Mix	Not applicable.	
	Exo(-) Klenow	Not applicable.	
	Cyanine-3-dUTP	Not applicable.	
	Cyanine-5-dUTP	Not applicable.	
	2X Hybridization Buffer	Not applicable.	
	: 10X aCGH Blocking Agent	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.	
	Random Primers	Not applicable.	
	5X Reaction Buffer	Not applicable.	
	10X dNTP Mix	Not applicable.	
Exo(-) Klenow	Not applicable.		
Cyanine-3-dUTP	Not applicable.		
Cyanine-5-dUTP	Not applicable.		
2X Hybridization Buffer	Not applicable.		

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SECTION 2: Hazards identification

Hazardous ingredients	: 10X aCGH Blocking Agent 5X Reaction Buffer 2X Hybridization Buffer	- Trometamol - 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride Not applicable. - Lithium dodecyl sulphate
Supplemental label elements	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Not applicable. Not applicable. Contains 2-mercaptoethanol. May produce an allergic reaction. Safety data sheet available on request. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Special packaging requirements		
Tactile warning of danger	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	May form explosible dust-air mixture if dispersed. None known. None known. None known. None known. None known. None known.
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SECTION 3: Composition/information on ingredients

3.1 Substances	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Mixture Mixture Mixture Mixture Mixture Mixture Mixture
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Custom Enzymatic DNA Labeling Kit Bundle, Part Number 930946

SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
10X aCGH Blocking Agent Trometamol	EC: 201-064-4 CAS: 77-86-1	≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
5X Reaction Buffer 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
Exo(-) Klenow Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
2X Hybridization Buffer 4-Morpholineethanesulfonic acid, hydrate (1:1)	EC: 224-632-3 CAS: 145224-94-8	≤10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
Lithium chloride	EC: 231-212-3 CAS: 7447-41-8	≤10	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
Lithium dodecyl sulphate	EC: 218-058-2 CAS: 2044-56-6	≤5	Flam. Sol. 2, H228 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	[1]
Polyoxyethylene octyl phenyl ether	CAS: 9002-93-1	≤2.3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1] [5]
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]-1-disiloxanyl]propyl] ether	CAS: 134180-76-0	≤1.7	Aquatic Chronic 2, H411 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	[1]
			See Section 16 for the full text of the H statements declared above.	

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.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of 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.
	Random Primers	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	5X Reaction Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X dNTP Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Exo(-) Klenow	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Cyanine-3-dUTP	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Cyanine-5-dUTP	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	2X 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 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.
	Random Primers	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	5X Reaction Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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 dNTP Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Exo(-) Klenow	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Cyanine-3-dUTP	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if

SECTION 4: First aid measures

		symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Cyanine-5-dUTP	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	2X Hybridization Buffer	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
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.
	Random Primers	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	5X Reaction Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Exo(-) Klenow	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Cyanine-3-dUTP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Cyanine-5-dUTP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	2X 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

SECTION 4: First aid measures

	open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Random Primers	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
5X Reaction Buffer	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
10X dNTP Mix	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Exo(-) Klenow	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Cyanine-3-dUTP	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Cyanine-5-dUTP	Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
2X 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.
Protection of first-aiders :	10X aCGH Blocking Agent
	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.
	Random Primers
	No action shall be taken involving any personal risk or without suitable training.
	5X Reaction Buffer
	No action shall be taken involving any personal risk or

SECTION 4: First aid measures

10X dNTP Mix	without suitable training. No action shall be taken involving any personal risk or without suitable training.
Exo(-) Klenow	No action shall be taken involving any personal risk or without suitable training.
Cyanine-3-dUTP	No action shall be taken involving any personal risk or without suitable training.
Cyanine-5-dUTP	No action shall be taken involving any personal risk or without suitable training.
2X 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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Causes serious eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye damage.
Inhalation	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	May cause respiratory irritation. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Causes skin irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation.
Ingestion	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

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Eye contact	: 10X aCGH Blocking Agent	Adverse symptoms may include the following: pain or irritation watering redness
	Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain watering redness
Inhalation	: 10X aCGH Blocking Agent	Adverse symptoms may include the following: respiratory tract irritation coughing
	Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Skin contact	: 10X aCGH Blocking Agent	Adverse symptoms may include the following: irritation redness
	Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: 10X aCGH Blocking Agent	No specific data.
	Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

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.
	Random Primers	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	5X Reaction 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.

SECTION 4: First aid measures

	10X dNTP Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Exo(-) Klenow	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Cyanine-3-dUTP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Cyanine-5-dUTP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	2X 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.
	Random Primers	No specific treatment.
	5X Reaction Buffer	No specific treatment.
	10X dNTP Mix	No specific treatment.
	Exo(-) Klenow	No specific treatment.
	Cyanine-3-dUTP	No specific treatment.
	Cyanine-5-dUTP	No specific treatment.
	2X Hybridization Buffer	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 10X aCGH Blocking Agent	Use dry chemical powder.
	Random Primers	Use an extinguishing agent suitable for the surrounding fire.
	5X Reaction Buffer	Use an extinguishing agent suitable for the surrounding fire.
	10X dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
	Exo(-) Klenow	Use an extinguishing agent suitable for the surrounding fire.
	Cyanine-3-dUTP	Use an extinguishing agent suitable for the surrounding fire.
	Cyanine-5-dUTP	Use an extinguishing agent suitable for the surrounding fire.
	2X Hybridization Buffer	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 10X aCGH Blocking Agent	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	Random Primers	None known.
	5X Reaction Buffer	None known.
	10X dNTP Mix	None known.
	Exo(-) Klenow	None known.
	Cyanine-3-dUTP	None known.
	Cyanine-5-dUTP	None known.
	2X Hybridization Buffer	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: 10X aCGH Blocking Agent	May form explosible dust-air mixture if dispersed.
	Random Primers	In a fire or if heated, a pressure increase will occur and the container may burst.
	5X Reaction Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Exo(-) Klenow	In a fire or if heated, a pressure increase will occur and the container may burst.
	Cyanine-3-dUTP	In a fire or if heated, a pressure increase will occur and the container may burst.
	Cyanine-5-dUTP	In a fire or if heated, a pressure increase will occur and the container may burst.
	2X Hybridization Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.

SECTION 5: Firefighting measures

Hazardous combustion products	: 10X aCGH Blocking Agent	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides halogenated compounds
	Random Primers 5X Reaction Buffer	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
	10X dNTP Mix Exo(-) Klenow	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Random Primers	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.
	5X Reaction 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 dNTP Mix	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.
	Exo(-) Klenow	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.
	Cyanine-3-dUTP	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.
	Cyanine-5-dUTP	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 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.

SECTION 5: Firefighting measures

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Random Primers	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	5X Reaction Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	10X dNTP Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Exo(-) Klenow	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Cyanine-3-dUTP	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Cyanine-5-dUTP	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	2X 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Random Primers	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas.

SECTION 6: Accidental release measures

		Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	5X Reaction 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. Put on appropriate personal protective equipment.
	10X dNTP Mix	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. Put on appropriate personal protective equipment.
	Exo(-) Klenow	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. Put on appropriate personal protective equipment.
	Cyanine-3-dUTP	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. Put on appropriate personal protective equipment.
	Cyanine-5-dUTP	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. Put on appropriate personal protective equipment.
	2X 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".
	Random Primers	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".
	5X Reaction 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 dNTP Mix	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".
	Exo(-) Klenow	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".
	Cyanine-3-dUTP	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".
	Cyanine-5-dUTP	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-

SECTION 6: Accidental release measures

	2X Hybridization Buffer	emergency personnel". 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".
6.2 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).
	Random Primers	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).
	5X Reaction 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).
	10X dNTP Mix	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).
	Exo(-) Klenow	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).
	Cyanine-3-dUTP	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).
	Cyanine-5-dUTP	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 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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: 10X aCGH Blocking Agent	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.
	Random Primers	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.
	5X Reaction 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 dNTP Mix	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.
	Exo(-) Klenow	Stop leak if without risk. Move containers from spill area.

SECTION 6: Accidental release measures

	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.
Cyanine-3-dUTP	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.
Cyanine-5-dUTP	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.
2X 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.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 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. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. 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. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Random Primers	Put on appropriate personal protective equipment (see Section 8).
	5X Reaction Buffer	Put on appropriate personal protective equipment (see Section 8).
	10X dNTP Mix	Put on appropriate personal protective equipment (see Section 8).
	Exo(-) Klenow	Put on appropriate personal protective equipment (see Section 8).
	Cyanine-3-dUTP	Put on appropriate personal protective equipment (see Section 8).
	Cyanine-5-dUTP	Put on appropriate personal protective equipment (see Section 8).
	2X Hybridization Buffer	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. 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

SECTION 7: Handling and storage

Advice on general occupational hygiene

: 10X aCGH Blocking Agent

a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Random Primers

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.

5X Reaction 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 dNTP Mix

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.

Exo(-) Klenow

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.

Cyanine-3-dUTP

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.

Cyanine-5-dUTP

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 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.

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.

7.2 Conditions for safe storage, including any incompatibilities

Storage

: 10X aCGH Blocking Agent

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully

SECTION 7: Handling and storage

	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.
Random Primers	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.
5X Reaction 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 dNTP Mix	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.
Exo(-) Klenow	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.
Cyanine-3-dUTP	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.
Cyanine-5-dUTP	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

SECTION 7: Handling and storage

2X Hybridization Buffer

contamination. See Section 10 for incompatible materials before handling or use.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

7.3 Specific end use(s)

Recommendations

: 10X aCGH Blocking Agent	Industrial applications, Professional applications.
Random Primers	Industrial applications, Professional applications.
5X Reaction Buffer	Industrial applications, Professional applications.
10X dNTP Mix	Industrial applications, Professional applications.
Exo(-) Klenow	Industrial applications, Professional applications.
Cyanine-3-dUTP	Industrial applications, Professional applications.
Cyanine-5-dUTP	Industrial applications, Professional applications.
2X Hybridization Buffer	Industrial applications, Professional applications.

Industrial sector specific solutions

: 10X aCGH Blocking Agent	Not applicable.
Random Primers	Not applicable.
5X Reaction Buffer	Not applicable.
10X dNTP Mix	Not applicable.
Exo(-) Klenow	Not applicable.
Cyanine-3-dUTP	Not applicable.
Cyanine-5-dUTP	Not applicable.
2X Hybridization Buffer	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Exo(-) Klenow Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

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.

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.

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: 10X aCGH Blocking Agent	Solid. [lyophilised]
	Random Primers	Liquid.
	5X Reaction Buffer	Liquid.
	10X dNTP Mix	Liquid.
	Exo(-) Klenow	Liquid.
	Cyanine-3-dUTP	Liquid.
	Cyanine-5-dUTP	Liquid.
	2X Hybridization Buffer	Liquid.
Colour	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.

SECTION 9: Physical and chemical properties

		Cyanine-5-dUTP	Not available.
		2X Hybridization Buffer	Not available.
Odour	:	10X aCGH Blocking Agent	Not available.
		Random Primers	Not available.
		5X Reaction Buffer	Not available.
		10X dNTP Mix	Not available.
		Exo(-) Klenow	Not available.
		Cyanine-3-dUTP	Not available.
		Cyanine-5-dUTP	Not available.
		2X Hybridization Buffer	Not available.
Odour threshold	:	10X aCGH Blocking Agent	Not available.
		Random Primers	Not available.
		5X Reaction Buffer	Not available.
		10X dNTP Mix	Not available.
		Exo(-) Klenow	Not available.
		Cyanine-3-dUTP	Not available.
		Cyanine-5-dUTP	Not available.
		2X Hybridization Buffer	Not available.
pH	:	10X aCGH Blocking Agent	Not available.
		Random Primers	8
		5X Reaction Buffer	6.8
		10X dNTP Mix	8
		Exo(-) Klenow	7.5
		Cyanine-3-dUTP	Not available.
		Cyanine-5-dUTP	Not available.
		2X Hybridization Buffer	8
Melting point/freezing point	:	10X aCGH Blocking Agent	Not available.
		Random Primers	0°C
		5X Reaction Buffer	0°C
		10X dNTP Mix	0°C
		Exo(-) Klenow	Not available.
		Cyanine-3-dUTP	0°C
		Cyanine-5-dUTP	0°C
		2X Hybridization Buffer	Not available.
Initial boiling point and boiling range	:	10X aCGH Blocking Agent	Not available.
		Random Primers	100°C
		5X Reaction Buffer	100°C
		10X dNTP Mix	100°C
		Exo(-) Klenow	Not available.
		Cyanine-3-dUTP	100°C
		Cyanine-5-dUTP	100°C
		2X Hybridization Buffer	Not available.
Flash point	:	10X aCGH Blocking Agent	Not available.
		Random Primers	Not available.
		5X Reaction Buffer	Not available.
		10X dNTP Mix	Not available.
		Exo(-) Klenow	Not available.
		Cyanine-3-dUTP	Not available.
		Cyanine-5-dUTP	Not available.
		2X Hybridization Buffer	Not available.

SECTION 9: Physical and chemical properties

Evaporation rate	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Flammability (solid, gas)	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not applicable.
	5X Reaction Buffer	Not applicable.
	10X dNTP Mix	Not applicable.
	Exo(-) Klenow	Not applicable.
	Cyanine-3-dUTP	Not applicable.
	Cyanine-5-dUTP	Not applicable.
	2X Hybridization Buffer	Not applicable.
Upper/lower flammability or explosive limits	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Vapour pressure	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Vapour density	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Relative density	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.

SECTION 9: Physical and chemical properties

Solubility(ies)	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Easily soluble in the following materials: cold water and hot water.
	5X Reaction Buffer	Easily soluble in the following materials: cold water and hot water.
	10X dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	Exo(-) Klenow	Soluble in the following materials: cold water and hot water.
	Cyanine-3-dUTP	Easily soluble in the following materials: cold water and hot water.
	Cyanine-5-dUTP	Easily soluble in the following materials: cold water and hot water.
	2X Hybridization Buffer	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Auto-ignition temperature	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Decomposition temperature	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Viscosity	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
	2X Hybridization Buffer	Not available.
Explosive properties	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.

SECTION 9: Physical and chemical properties

Oxidising properties	2X Hybridization Buffer	Not available.
	: 10X aCGH Blocking Agent	Not available.
	Random Primers	Not available.
	5X Reaction Buffer	Not available.
	10X dNTP Mix	Not available.
	Exo(-) Klenow	Not available.
	Cyanine-3-dUTP	Not available.
	Cyanine-5-dUTP	Not available.
2X Hybridization Buffer	Not available.	

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: 10X aCGH Blocking Agent	No specific test data related to reactivity available for this product or its ingredients.
	Random Primers	No specific test data related to reactivity available for this product or its ingredients.
	5X Reaction Buffer	No specific test data related to reactivity available for this product or its ingredients.
	10X dNTP Mix	No specific test data related to reactivity available for this product or its ingredients.
	Exo(-) Klenow	No specific test data related to reactivity available for this product or its ingredients.
	Cyanine-3-dUTP	No specific test data related to reactivity available for this product or its ingredients.
	Cyanine-5-dUTP	No specific test data related to reactivity available for this product or its ingredients.
	2X Hybridization Buffer	No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability	: 10X aCGH Blocking Agent	The product is stable.
	Random Primers	The product is stable.
	5X Reaction Buffer	The product is stable.
	10X dNTP Mix	The product is stable.
	Exo(-) Klenow	The product is stable.
	Cyanine-3-dUTP	The product is stable.
	Cyanine-5-dUTP	The product is stable.
	2X Hybridization Buffer	The product is stable.

10.3 Possibility of hazardous reactions	: 10X aCGH Blocking Agent	Under normal conditions of storage and use, hazardous reactions will not occur.
	Random Primers	Under normal conditions of storage and use, hazardous reactions will not occur.
	5X Reaction Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X dNTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	Exo(-) Klenow	Under normal conditions of storage and use, hazardous reactions will not occur.
	Cyanine-3-dUTP	Hazardous reactions or instability may occur under certain conditions of storage or use.
	Cyanine-5-dUTP	Under normal conditions of storage and use, hazardous reactions will not occur.
	2X Hybridization Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity

10.4 Conditions to avoid	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Reactive or incompatible with the following materials: oxidizing materials May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X 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. 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. 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. 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

11.1 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 Hybridization Buffer Lithium chloride	LD50 Dermal	Rabbit	1629 mg/kg	-
	LD50 Dermal	Rat	1488 mg/kg	-
	LD50 Oral	Rat	526 mg/kg	-
Lithium dodecyl sulphate	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	1800 mg/kg	-
Polyoxyethylene octyl phenyl ether	LD50 Oral	Rat	1800 mg/kg	-
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,	LC50 Inhalation Dusts and mists	Rat	1.08 mg/l	4 hours

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SECTION 11: Toxicological information

3-tetramethyl-1-[(trimethylsilyloxy)-1-disiloxanyl]propyl ether	LD50 Dermal	Rabbit	1550 mg/kg	-
	LD50 Oral	Rat	3200 mg/kg	-

Acute toxicity estimates

Route	ATE value
5X Reaction Buffer Oral Dermal Inhalation (vapours)	69714.3 mg/kg 57142.9 mg/kg 571.4 mg/l
2X Hybridization Buffer Oral Dermal Inhalation (dusts and mists)	9109.1 mg/kg 91553.3 mg/kg 63.79 mg/l

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 Hybridization Buffer Lithium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams 24 hours 500 milligrams	-
	Skin - Severe irritant	Rabbit	-		-
Polyoxyethylene octyl phenyl ether	Eyes - Moderate irritant	Rabbit	-	24 hours 10 microliters 24 hours 500 microliters	-
	Skin - Mild irritant	Rabbit	-		-
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	-	-	-

Sensitiser

Product/ingredient name	Route of exposure	Species	Result
2X 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

Specific target organ toxicity (single exposure)

SECTION 11: Toxicological information

Product/ingredient 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
5X Reaction Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
2X Hybridization Buffer 4-Morpholineethanesulfonic acid, hydrate (1:1)	Category 3	Not applicable.	Respiratory tract irritation
Lithium dodecyl sulphate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

: 10X aCGH Blocking Agent	Routes of entry anticipated: Oral, Dermal, Inhalation.
Random Primers	Not available.
5X Reaction Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X dNTP Mix	Not available.
Exo(-) Klenow	Routes of entry anticipated: Oral, Dermal, Inhalation.
Cyanine-3-dUTP	Not available.
Cyanine-5-dUTP	Not available.
2X Hybridization Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	: 10X aCGH Blocking Agent	May cause respiratory irritation.
	Random Primers	No known significant effects or critical hazards.
	5X Reaction Buffer	No known significant effects or critical hazards.
	10X dNTP Mix	No known significant effects or critical hazards.
	Exo(-) Klenow	No known significant effects or critical hazards.
	Cyanine-3-dUTP	No known significant effects or critical hazards.
	Cyanine-5-dUTP	No known significant effects or critical hazards.
	2X Hybridization Buffer	No known significant effects or critical hazards.
Ingestion	: 10X aCGH Blocking Agent	No known significant effects or critical hazards.
	Random Primers	No known significant effects or critical hazards.
	5X Reaction Buffer	No known significant effects or critical hazards.
	10X dNTP Mix	No known significant effects or critical hazards.
	Exo(-) Klenow	No known significant effects or critical hazards.
	Cyanine-3-dUTP	No known significant effects or critical hazards.
	Cyanine-5-dUTP	No known significant effects or critical hazards.
	2X Hybridization Buffer	No known significant effects or critical hazards.
Skin contact	: 10X aCGH Blocking Agent	Causes skin irritation.
	Random Primers	No known significant effects or critical hazards.
	5X Reaction Buffer	No known significant effects or critical hazards.
	10X dNTP Mix	No known significant effects or critical hazards.
	Exo(-) Klenow	No known significant effects or critical hazards.
	Cyanine-3-dUTP	No known significant effects or critical hazards.
	Cyanine-5-dUTP	No known significant effects or critical hazards.

SECTION 11: Toxicological information

	2X Hybridization Buffer	Causes skin irritation.
Eye contact	: 10X aCGH Blocking Agent	Causes serious eye irritation.
	Random Primers	No known significant effects or critical hazards.
	5X Reaction Buffer	No known significant effects or critical hazards.
	10X dNTP Mix	No known significant effects or critical hazards.
	Exo(-) Klenow	No known significant effects or critical hazards.
	Cyanine-3-dUTP	No known significant effects or critical hazards.
	Cyanine-5-dUTP	No known significant effects or critical hazards.
	2X Hybridization Buffer	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: 10X aCGH Blocking Agent	Adverse symptoms may include the following: respiratory tract irritation coughing
	Random Primers	No specific data.
	5X Reaction Buffer	No specific data.
	10X dNTP Mix	No specific data.
	Exo(-) Klenow	No specific data.
	Cyanine-3-dUTP	No specific data.
	Cyanine-5-dUTP	No specific data.
	2X Hybridization Buffer	No specific data.
Ingestion	: 10X aCGH Blocking Agent	No specific data.
	Random Primers	No specific data.
	5X Reaction Buffer	No specific data.
	10X dNTP Mix	No specific data.
	Exo(-) Klenow	No specific data.
	Cyanine-3-dUTP	No specific data.
	Cyanine-5-dUTP	No specific data.
	2X Hybridization Buffer	Adverse symptoms may include the following: stomach pains
Skin contact	: 10X aCGH Blocking Agent	Adverse symptoms may include the following: irritation redness
	Random Primers	No specific data.
	5X Reaction Buffer	No specific data.
	10X dNTP Mix	No specific data.
	Exo(-) Klenow	No specific data.
	Cyanine-3-dUTP	No specific data.
	Cyanine-5-dUTP	No specific data.
	2X Hybridization Buffer	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Eye contact	: 10X aCGH Blocking Agent	Adverse symptoms may include the following: pain or irritation watering redness
	Random Primers	No specific data.
	5X Reaction Buffer	No specific data.
	10X dNTP Mix	No specific data.
	Exo(-) Klenow	No specific data.
	Cyanine-3-dUTP	No specific data.
	Cyanine-5-dUTP	No specific data.
	2X Hybridization Buffer	Adverse symptoms may include the following: pain watering

SECTION 11: Toxicological information

redness

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 Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: 10X aCGH Blocking Agent Random Primers 5X Reaction Buffer 10X dNTP Mix Exo(-) Klenow Cyanine-3-dUTP Cyanine-5-dUTP 2X Hybridization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Fertility effects	: 10X aCGH Blocking Agent	No known significant effects or critical hazards.
	Random Primers	No known significant effects or critical hazards.
	5X Reaction Buffer	No known significant effects or critical hazards.
	10X dNTP Mix	No known significant effects or critical hazards.
	Exo(-) Klenow	No known significant effects or critical hazards.
	Cyanine-3-dUTP	No known significant effects or critical hazards.
	Cyanine-5-dUTP	No known significant effects or critical hazards.
	2X Hybridization Buffer	No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 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 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

12.2 Persistence and degradability

Not available.

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

12.3 Bioaccumulative potential

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

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Date of issue/Date of revision : 30/06/2017

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SECTION 12: Ecological information

PBT : Not applicable.
vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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

ADR/RID / IMDG / IATA : Not regulated.

14.6 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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
2X Hybridization Buffer Polyoxyethylene octyl phenyl ether	Substance of equivalent concern for environment	Recommended	ED/169/2012	2/10/2014

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 10X aCGH Blocking Agent	Not applicable.
	Random Primers	Not applicable.
	5X Reaction Buffer	Not applicable.
	10X dNTP Mix	Not applicable.
	Exo(-) Klenow	Not applicable.
	Cyanine-3-dUTP	Not applicable.
	Cyanine-5-dUTP	Not applicable.
	2X Hybridization Buffer	Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: Not determined.
Japan	: Japan inventory (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.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
10X aCGH Blocking Agent Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	Calculation method Calculation method Calculation method
2X Hybridization Buffer Skin Irrit. 2, H315 Eye Dam. 1, H318	Calculation method Calculation method

Full text of abbreviated H statements

10X aCGH Blocking Agent H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
5X Reaction Buffer H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
2X Hybridization Buffer H228 H302 H312 H315 H318 H319 H332 H335 H411 H412	Flammable solid. Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

10X aCGH Blocking Agent Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
5X Reaction Buffer Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
2X Hybridization Buffer Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Aquatic Chronic 2, H411	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

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SECTION 16: Other information

Aquatic Chronic 3, H412
Eye Dam. 1, H318
Eye Irrit. 2, H319
Flam. Sol. 2, H228
Skin Irrit. 2, H315
STOT SE 3, H335

LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
FLAMMABLE SOLIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE
(Respiratory tract irritation) - Category 3

Date of issue/ Date of revision : 30/06/2017

Date of previous issue : No previous validation.

Version : 1

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