

SAFETY DATA SHEET



Genomic DNA ULS Labeling Kit Module, Part Number 5190-0420

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

1.1 Product identifier

Product name : Genomic DNA ULS Labeling Kit Module, Part Number 5190-0420
Part No. (Kit) : 5190-0420
Part No. : 10x Labeling Solution LK017G
Cy3, Cy5 LK106A_LK107A

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

Identified uses	
Analytical chemistry. The following article is also contained in this kit: SP0005K. (No SDS is necessary.)	
10x Labeling Solution	0.1 ml
Cy3, Cy5	0.0125 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 Labeling Solution Mixture
Cy3, Cy5 Mixture

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

Cy3, Cy5

H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
H360D REPRODUCTIVE TOXICITY (Unborn child) - Category 1B

Ingredients of unknown toxicity : 10x Labeling Solution Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
Cy3, Cy5 Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

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

Date of issue/Date of revision : 27/06/2017

Genomic DNA ULS Labeling Kit Module, Part Number 5190-0420

SECTION 2: Hazards identification

Hazard pictograms	: Cy3, Cy5	
Signal word	: 10x Labeling Solution Cy3, Cy5	No signal word. Danger
Hazard statements	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. H319 - Causes serious eye irritation. H360D - May damage the unborn child.
<u>Precautionary statements</u>		
Prevention	: 10x Labeling Solution Cy3, Cy5	Not applicable. P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Response	: 10x Labeling Solution Cy3, Cy5	Not applicable. P308 + P313 - IF exposed or if you feel unwell: 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.
Storage	: 10x Labeling Solution Cy3, Cy5	Not applicable. P405 - Store locked up.
Disposal	: 10x Labeling Solution Cy3, Cy5	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: 10x Labeling Solution Cy3, Cy5	Not applicable. - N,N-dimethylformamide
Supplemental label elements	: 10x Labeling Solution Cy3, Cy5	Safety data sheet available on request. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 10x Labeling Solution Cy3, Cy5	Not applicable. Restricted to professional users.
<u>Special packaging requirements</u>		
Tactile warning of danger	: 10x Labeling Solution Cy3, Cy5	Not applicable. Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: 10x Labeling Solution Cy3, Cy5	None known. None known.
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SECTION 3: Composition/information on ingredients

3.1 Substances	: 10x Labeling Solution Cy3, Cy5	Mixture Mixture
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SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
10x Labeling Solution Trometamol	EC: 201-064-4 CAS: 77-86-1	<10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
Cy3, Cy5 N,N-Dimethylformamide	EC: 200-679-5 CAS: 68-12-2 Index: 616-001-00-X	≥25 - ≤50	Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Repr. 1B, H360D (Unborn child)	[1] [2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≥10 - ≤25	Eye Irrit. 2, H319 See Section 16 for the full text of the H statements declared above.	[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.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: 10x Labeling Solution	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.
	Cy3, Cy5	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	: 10x Labeling Solution	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.
	Cy3, Cy5	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 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.

SECTION 4: First aid measures

Skin contact	: 10x Labeling Solution Cy3, Cy5	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. 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. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: 10x Labeling Solution Cy3, Cy5	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. 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. 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 Labeling Solution Cy3, Cy5	No action shall be taken involving any personal risk or without suitable training. 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 Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. Causes serious eye irritation.
Inhalation	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

SECTION 4: First aid measures

Skin contact	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: 10x Labeling Solution Cy3, Cy5	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: 10x Labeling Solution Cy3, Cy5	No specific treatment. No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 10x Labeling Solution Cy3, Cy5	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 10x Labeling Solution Cy3, Cy5	None known. None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: 10x Labeling Solution Cy3, Cy5	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: 10x Labeling Solution Cy3, Cy5	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	: 10x Labeling Solution Cy3, Cy5	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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SECTION 5: Firefighting measures

Special protective equipment for fire-fighters	: 10x Labeling Solution	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.
	Cy3, Cy5	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 Labeling Solution	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.
	Cy3, Cy5	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.
For emergency responders	: 10x Labeling Solution	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".
	Cy3, Cy5	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 Labeling Solution	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).
	Cy3, Cy5	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 Labeling Solution	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.
	Cy3, Cy5	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

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 Labeling Solution Cy3, Cy5	Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: 10x Labeling Solution Cy3, Cy5	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 Labeling Solution Cy3, Cy5	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. 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.
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7.3 Specific end use(s)

Recommendations	: 10x Labeling Solution Cy3, Cy5	Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: 10x Labeling Solution Cy3, Cy5	Not applicable. Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Cy3, Cy5 N,N-Dimethylformamide	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 30 mg/m ³ 15 minutes. STEL: 10 ppm 15 minutes. TWA: 5 ppm 8 hours. TWA: 15 mg/m ³ 8 hours.

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

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.

SECTION 8: Exposure controls/personal protection

- 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 Labeling Solution Cy3, Cy5	Liquid. Liquid.
Colour	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Odour	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Odour threshold	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
pH	: 10x Labeling Solution Cy3, Cy5	7 Not available.
Melting point/freezing point	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Initial boiling point and boiling range	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Flash point	: 10x Labeling Solution Cy3, Cy5	Not available. Closed cup: 61 to 93.3°C
Evaporation rate	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Flammability (solid, gas)	: 10x Labeling Solution Cy3, Cy5	Not applicable. Not applicable.
Upper/lower flammability or explosive limits	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Vapour pressure	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Vapour density	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Relative density	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Solubility(ies)	: 10x Labeling Solution Cy3, Cy5	Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Auto-ignition temperature	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Decomposition temperature	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.

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SECTION 9: Physical and chemical properties

Viscosity	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Explosive properties	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.
Oxidising properties	: 10x Labeling Solution Cy3, Cy5	Not available. Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: 10x Labeling Solution Cy3, Cy5	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: 10x Labeling Solution Cy3, Cy5	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: 10x Labeling Solution Cy3, Cy5	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: 10x Labeling Solution Cy3, Cy5	No specific data. No specific data.
10.5 Incompatible materials	: 10x Labeling Solution Cy3, Cy5	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: 10x Labeling Solution Cy3, Cy5	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 Labeling Solution Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Cy3, Cy5 N,N-Dimethylformamide	LC50 Inhalation Vapour	Rat	3421 ppm	1 hours
	LC50 Inhalation Vapour	Rat	1948 ppm	4 hours
	LD50 Dermal	Rabbit	4720 mg/kg	-
	LD50 Oral	Rat	2000 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Acute toxicity estimates

Route	ATE value
Cy3, Cy5 Dermal Inhalation (vapours)	2750 mg/kg 27.5 mg/l

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SECTION 11: Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
10x Labeling Solution Trometamol	Skin - Moderate irritant	Rabbit	-	25 Percent 500 milligrams	-
	Skin - Severe irritant	Rabbit	-		-
Cy3, Cy5 N,N-Dimethylformamide Sodium chloride	Eyes - Severe irritant	Rabbit	-	100 Percent 24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-		-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams 24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
10x Labeling Solution Trometamol	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 Labeling Solution
Cy3, Cy5

Routes of entry anticipated: Oral, Dermal, Inhalation.
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. No known significant effects or critical hazards.
Eye contact	: 10x Labeling Solution Cy3, Cy5	No known significant effects or critical hazards. Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: 10x Labeling Solution Cy3, Cy5	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

SECTION 11: Toxicological information

Eye contact : 10x Labeling Solution No specific data.
Cy3, Cy5 Adverse symptoms may include the following:
pain or irritation
watering
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 Labeling Solution No known significant effects or critical hazards.
Cy3, Cy5 No known significant effects or critical hazards.

Carcinogenicity : 10x Labeling Solution No known significant effects or critical hazards.
Cy3, Cy5 No known significant effects or critical hazards.

Mutagenicity : 10x Labeling Solution No known significant effects or critical hazards.
Cy3, Cy5 No known significant effects or critical hazards.

Teratogenicity : 10x Labeling Solution No known significant effects or critical hazards.
Cy3, Cy5 May damage the unborn child.

Developmental effects : 10x Labeling Solution No known significant effects or critical hazards.
Cy3, Cy5 No known significant effects or critical hazards.

Fertility effects : 10x Labeling Solution No known significant effects or critical hazards.
Cy3, Cy5 No known significant effects or critical hazards.

Other information : 10x Labeling Solution Not available.
Cy3, Cy5 Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
10x Labeling Solution Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours
Cy3, Cy5 N,N-Dimethylformamide	Acute EC50 4500000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >100000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 7100000 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 1500 mg/l Fresh water	Daphnia - Daphnia magna	21 days
Sodium chloride	Chronic NOEC 1000 mg/l Fresh water	Fish - Pimephales promelas - Embryo	32 days
	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours

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SECTION 12: Ecological information

	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
10x Labeling Solution Trometamol	-1.56	-	low
Cy3, Cy5 N,N-Dimethylformamide	-1.01	0.79	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

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
Cy3, Cy5 N,N-Dimethylformamide	Toxic to reproduction	Recommended	ED/169/2012	02/10/2014

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : 10x Labeling Solution
Cy3, Cy5 Not applicable.
Restricted to professional users.

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 : All components are listed or exempted.

SECTION 15: Regulatory information

Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
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
Cy3, Cy5 Eye Irrit. 2, H319 Repr. 1B, H360D (Unborn child)	Calculation method Calculation method

Full text of abbreviated H statements

10x Labeling Solution H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Cy3, Cy5 H312 H319 H332 H360D	Harmful in contact with skin. Causes serious eye irritation. Harmful if inhaled. May damage the unborn child.

Full text of classifications [CLP/GHS]

Genomic DNA ULS Labeling Kit Module, Part Number 5190-0420

SECTION 16: Other information

10x Labeling Solution

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

Cy3, Cy5

Acute Tox. 4, H312
Acute Tox. 4, H332
Eye Irrit. 2, H319
Repr. 1B, H360D

ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
REPRODUCTIVE TOXICITY (Unborn child) - Category 1B

Date of issue/ Date of revision : 27/06/2017

Date of previous issue : 27/06/2017.

Version : 3

Notice to reader

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