

# SAFETY DATA SHEET



Genomic DNA ULS Labeling Kit, Part Number 5190-0419

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

### 1.1 Product identifier

**Product name** : Genomic DNA ULS Labeling Kit, Part Number 5190-0419  
**Part No. (Kit)** : 5190-0419  
**Part No.** : Agilent-CGHblock 5190-0421  
                  : ULS-Cyanine3 LK019G  
                  : ULS-Cyanine5 LK020G  
                  : 10X Labeling Solution LK017D

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

Identified uses	
Analytical reagent. The following article is also contained in this kit: SP0005K. (No SDS is necessary.)	
Agilent-CGHblock	0.75 ml
ULS-Cyanine3	0.0125 ml
ULS-Cyanine5	0.0125 ml
10X Labeling Solution	0.1 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** : Agilent-CGHblock Mixture  
                  : ULS-Cyanine3 Mixture  
                  : ULS-Cyanine5 Mixture  
                  : 10X Labeling Solution Mixture

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

##### **ULS-Cyanine3**

H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
H360D TOXIC TO REPRODUCTION (Unborn child) - Category 1B

##### **ULS-Cyanine5**

H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
H360D TOXIC TO REPRODUCTION (Unborn child) - Category 1B

## SECTION 2: Hazards identification

<b>Ingredients of unknown toxicity</b>	: Agilent-CGHblock	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5%
	ULS-Cyanine3	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5%
	ULS-Cyanine5	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5%
	10X Labeling Solution	Not applicable.
<b>Ingredients of unknown ecotoxicity</b>	: Agilent-CGHblock	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5%
	ULS-Cyanine3	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5%
	ULS-Cyanine5	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5%
	10X Labeling Solution	Not applicable.

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** :



**Signal word** :

Agilent-CGHblock	No signal word.
ULS-Cyanine3	Danger
ULS-Cyanine5	Danger
10X Labeling Solution	No signal word.

**Hazard statements** :

Agilent-CGHblock	No known significant effects or critical hazards.
ULS-Cyanine3	<b>GHS07</b> - Causes serious eye irritation.
	<b>GHS08</b> - May damage the unborn child.
ULS-Cyanine5	<b>GHS07</b> - Causes serious eye irritation.
	<b>GHS08</b> - May damage the unborn child.
10X Labeling Solution	No known significant effects or critical hazards.

### Precautionary statements

**Prevention** :

Agilent-CGHblock	Not applicable.
ULS-Cyanine3	P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
ULS-Cyanine5	P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
10X Labeling Solution	Not applicable.

**Response** :

Agilent-CGHblock	Not applicable.
ULS-Cyanine3	P308 + P313 - IF exposed or concerned: Get medical attention. P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.
ULS-Cyanine5	P308 + P313 - IF exposed or concerned: Get medical attention. P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.
10X Labeling Solution	Not applicable.

**Storage** :

Agilent-CGHblock	Not applicable.
ULS-Cyanine3	P405 - Store locked up.
ULS-Cyanine5	P405 - Store locked up.
10X Labeling Solution	Not applicable.

## SECTION 2: Hazards identification

<b>Disposal</b>	: Agilent-CGHblock ULS-Cyanine3  ULS-Cyanine5  10X Labeling Solution	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable.
<b>Hazardous ingredients</b>	: <b>ULS-Cyanine3</b> N,N-Dimethylformamide  <b>ULS-Cyanine5</b> N,N-Dimethylformamide	
<b>Supplemental label elements</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Safety data sheet available on request. Not applicable. Not applicable. Safety data sheet available on request.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not applicable. Restricted to professional users. Restricted to professional users. Not applicable.
<b><u>Special packaging requirements</u></b>		
<b>Tactile warning of danger</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not applicable. Not applicable. Not applicable. Not applicable.

### 2.3 Other hazards

<b>Other hazards which do not result in classification</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	None known. None known. None known. None known.
--	---	--

## SECTION 3: Composition/information on ingredients

<b>3.2 Mixtures</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Mixture Mixture Mixture Mixture
---------------------	---	--

Product/ingredient name	Identifiers	%	Classification	Type
<b>Agilent-CGHblock</b> 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
<b>ULS-Cyanine3</b> N,N-Dimethylformamide	EC: 200-679-5 CAS: 68-12-2 Index: 616-001-00-X	≥50 - <55	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	≤5	Eye Irrit. 2, H319	[1]
<b>ULS-Cyanine5</b> N,N-Dimethylformamide	EC: 200-679-5 CAS: 68-12-2 Index: 616-001-00-X	≥50 - <55	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	≤5	Eye Irrit. 2, H319	[1]

### SECTION 3: Composition/information on ingredients

<b>10X Labeling Solution</b> Trometamol	EC: 201-064-4 CAS: 77-86-1	<10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335  <b>See Section 16 for the full text of the H statements declared above.</b>	[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

<b>Eye contact</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	10X 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.
<b>Inhalation</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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

**SECTION 4: First aid measures**

		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 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.
<b>Skin contact</b>	: Agilent-CGHblock	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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.
	10X Labeling Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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.
	10X Labeling Solution	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

**SECTION 4: First aid measures**

<b>Protection of first-aiders</b>	: Agilent-CGHblock	personnel. Get medical attention if symptoms occur.
	ULS-Cyanine3	No action shall be taken involving any personal risk or without suitable training.
	ULS-Cyanine5	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.
	10X Labeling Solution	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

<b>Eye contact</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	Causes serious eye irritation.
	ULS-Cyanine5	Causes serious eye irritation.
	10X Labeling Solution	No known significant effects or critical hazards.
<b>Inhalation</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	No known significant effects or critical hazards.
	ULS-Cyanine5	No known significant effects or critical hazards.
	10X Labeling Solution	No known significant effects or critical hazards.
<b>Skin contact</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	No known significant effects or critical hazards.
	ULS-Cyanine5	No known significant effects or critical hazards.
	10X Labeling Solution	No known significant effects or critical hazards.
<b>Ingestion</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	No known significant effects or critical hazards.
	ULS-Cyanine5	No known significant effects or critical hazards.
	10X Labeling Solution	No known significant effects or critical hazards.

Over-exposure signs/symptoms

<b>Eye contact</b>	: Agilent-CGHblock	No specific data.
	ULS-Cyanine3	Adverse symptoms may include the following: pain or irritation watering redness
	ULS-Cyanine5	Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: Agilent-CGHblock	No specific data.
	ULS-Cyanine3	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	ULS-Cyanine5	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	10X Labeling Solution	No specific data.

## SECTION 4: First aid measures

<b>Skin contact</b>	: Agilent-CGHblock ULS-Cyanine3	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	ULS-Cyanine5	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
<b>Ingestion</b>	10X Labeling Solution	No specific data.
	: Agilent-CGHblock ULS-Cyanine3	No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	ULS-Cyanine5	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	10X Labeling Solution	No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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 Labeling Solution	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.
<b>Specific treatments</b>	: Agilent-CGHblock	No specific treatment.
	ULS-Cyanine3	No specific treatment.
	ULS-Cyanine5	No specific treatment.
	10X Labeling Solution	No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Agilent-CGHblock	Use an extinguishing agent suitable for the surrounding fire.
	ULS-Cyanine3	Use an extinguishing agent suitable for the surrounding fire.
	ULS-Cyanine5	Use an extinguishing agent suitable for the surrounding fire.
	10X Labeling Solution	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: Agilent-CGHblock	None known.
	ULS-Cyanine3	None known.
	ULS-Cyanine5	None known.
	10X Labeling Solution	None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: Agilent-CGHblock	In a fire or if heated, a pressure increase will occur and the container may burst.
	ULS-Cyanine3	In a fire or if heated, a pressure increase will occur and the container may burst.
	ULS-Cyanine5	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X Labeling Solution	In a fire or if heated, a pressure increase will occur and the container may burst.

**SECTION 5: Firefighting measures**

<b>Hazardous combustion products</b>	: Agilent-CGHblock	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
	ULS-Cyanine3	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	ULS-Cyanine5	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	10X Labeling Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

**5.3 Advice for firefighters**

<b>Special precautions for fire-fighters</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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 Labeling Solution	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.

<b>Special protective equipment for fire-fighters</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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 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.



## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

: Agilent-CGHblock	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 spilled material. Put on appropriate personal protective equipment.
ULS-Cyanine3	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 spilled material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
ULS-Cyanine5	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 spilled material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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 spilled material. Put on appropriate personal protective equipment.

#### For emergency responders

: Agilent-CGHblock	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".
ULS-Cyanine3	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".
ULS-Cyanine5	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 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".

### 6.2 Environmental precautions

: Agilent-CGHblock	Avoid dispersal of spilled 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).
ULS-Cyanine3	Avoid dispersal of spilled 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).
ULS-Cyanine5	Avoid dispersal of spilled 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 Labeling Solution	Avoid dispersal of spilled 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

**SECTION 6: Accidental release measures**

<b>Methods for cleaning up</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	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.
	ULS-Cyanine5	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 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.

**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**

<b>Protective measures</b>	: Agilent-CGHblock	Put on appropriate personal protective equipment (see Section 8).
	ULS-Cyanine3	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.
	ULS-Cyanine5	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.
	10X Labeling Solution	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: Agilent-CGHblock	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.
	ULS-Cyanine3	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

**SECTION 7: Handling and storage**

ULS-Cyanine5	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.
10X Labeling Solution	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**

: Agilent-CGHblock	Do not store above the following temperature: -20°C (-4°F). 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.
ULS-Cyanine3	Store between the following temperatures: 2 to 6°C (35.6 to 42.8°F). 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.
ULS-Cyanine5	Store between the following temperatures: 2 to 6°C (35.6 to 42.8°F). 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.
10X Labeling Solution	Store between the following temperatures: 2 to 6°C (35.6 to 42.8°F). 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.

**7.3 Specific end use(s)**

**Recommendations**

: Agilent-CGHblock	Industrial applications, Professional applications.
ULS-Cyanine3	Industrial applications, Professional applications.
ULS-Cyanine5	Industrial applications, Professional applications.
10X Labeling Solution	Industrial applications, Professional applications.

## SECTION 7: Handling and storage

<b>Industrial sector specific solutions</b>	<b>:</b> Agilent-CGHblock	Not applicable.
	ULS-Cyanine3	Not applicable.
	ULS-Cyanine5	Not applicable.
	10X Labeling Solution	Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
<b>ULS-Cyanine3</b> N,N-Dimethylformamide	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b> STEL: 30 mg/m <sup>3</sup> 15 minutes. STEL: 10 ppm 15 minutes. TWA: 5 ppm 8 hours. TWA: 15 mg/m <sup>3</sup> 8 hours.
<b>ULS-Cyanine5</b> N,N-Dimethylformamide	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b> STEL: 30 mg/m <sup>3</sup> 15 minutes. STEL: 10 ppm 15 minutes. TWA: 5 ppm 8 hours. TWA: 15 mg/m <sup>3</sup> 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

## SECTION 8: Exposure controls/personal 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

<b>Physical state</b>	: Agilent-CGHblock	Liquid.
	ULS-Cyanine3	Liquid. [Clear.]
	ULS-Cyanine5	Liquid.
	10X Labeling Solution	Liquid.
<b>Colour</b>	: Agilent-CGHblock	Yellowish. [Light]
	ULS-Cyanine3	Pink [Light]
	ULS-Cyanine5	Blue. [Light]
	10X Labeling Solution	Colourless.
<b>Odour</b>	: Agilent-CGHblock	Sulphurous. [Slight]
	ULS-Cyanine3	Amine-like. [Slight]
	ULS-Cyanine5	Amine-like. [Slight]
	10X Labeling Solution	Odourless.
<b>Odour threshold</b>	: Agilent-CGHblock	Not available.
	ULS-Cyanine3	Not available.
	ULS-Cyanine5	Not available.
	10X Labeling Solution	Not available.
<b>pH</b>	: Agilent-CGHblock	Not available.
	ULS-Cyanine3	Not available.
	ULS-Cyanine5	Not available.
	10X Labeling Solution	7 to 8
<b>Melting point/freezing point</b>	: Agilent-CGHblock	Not available.
	ULS-Cyanine3	Not available.
	ULS-Cyanine5	Not available.
	10X Labeling Solution	Not available.
<b>Initial boiling point and boiling range</b>	: Agilent-CGHblock	Not available.
	ULS-Cyanine3	Not available.
	ULS-Cyanine5	Not available.
	10X Labeling Solution	95 to 100°C
<b>Flash point</b>	: Agilent-CGHblock	Not available.
	ULS-Cyanine3	Not available.
	ULS-Cyanine5	Not available.
	10X Labeling Solution	Not available.

**SECTION 9: Physical and chemical properties**

<b>Evaporation rate</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Flammability (solid, gas)</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not applicable. Not applicable. Not applicable. Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Vapour pressure</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Vapour density</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Relative density</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Solubility(ies)</b>	: Agilent-CGHblock  ULS-Cyanine3  ULS-Cyanine5  10X Labeling Solution	Partially soluble in the following materials: cold water and hot water.  Partially soluble in the following materials: cold water and hot water.  Partially soluble in the following materials: cold water and hot water.  Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Auto-ignition temperature</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Decomposition temperature</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Viscosity</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Explosive properties</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.
<b>Oxidising properties</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	Not available. Not available. Not available. Not available.

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: Agilent-CGHblock	No specific test data related to reactivity available for this product or its ingredients.
	ULS-Cyanine3	No specific test data related to reactivity available for this product or its ingredients.
	ULS-Cyanine5	No specific test data related to reactivity available for this product or its ingredients.
	10X Labeling Solution	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Agilent-CGHblock	The product is stable.
	ULS-Cyanine3	The product is stable.
	ULS-Cyanine5	The product is stable.
	10X Labeling Solution	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Agilent-CGHblock	Under normal conditions of storage and use, hazardous reactions will not occur.
	ULS-Cyanine3	Under normal conditions of storage and use, hazardous reactions will not occur.
	ULS-Cyanine5	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X Labeling Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Agilent-CGHblock	No specific data.
	ULS-Cyanine3	No specific data.
	ULS-Cyanine5	No specific data.
	10X Labeling Solution	No specific data.
<b>10.5 Incompatible materials</b>	: Agilent-CGHblock	May react or be incompatible with oxidising materials.
	ULS-Cyanine3	May react or be incompatible with oxidising materials.
	ULS-Cyanine5	May react or be incompatible with oxidising materials.
	10X Labeling Solution	May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: Agilent-CGHblock	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	ULS-Cyanine3	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	ULS-Cyanine5	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X Labeling Solution	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
<b>ULS-Cyanine3</b> 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	-
	LD50 Oral	Rat	3000 mg/kg	-
<b>ULS-Cyanine5</b> 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	-
	LD50 Oral	Rat	3000 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

**SECTION 11: Toxicological information**

<b>10X Labeling Solution</b> Trometamol	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-

Acute toxicity estimates

Route	ATE value
<b>ULS-Cyanine3</b> Dermal Inhalation (vapours)	2020.2 mg/kg 20.2 mg/l
<b>ULS-Cyanine5</b> Dermal Inhalation (vapours)	2020.2 mg/kg 20.2 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>ULS-Cyanine3</b> N,N-Dimethylformamide Sodium chloride	Eyes - Severe irritant	Rabbit	-	100 Percent	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>ULS-Cyanine5</b> N,N-Dimethylformamide Sodium chloride	Eyes - Severe irritant	Rabbit	-	100 Percent	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>10X Labeling Solution</b> Trometamol	Skin - Moderate irritant	Rabbit	-	25 Percent	-
	Skin - Severe irritant	Rabbit	-	500 milligrams	-

Sensitiser

**Conclusion/Summary** : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<b>Agilent-CGHblock</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
<b>10X Labeling Solution</b> Trometamol	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.



**SECTION 11: Toxicological information**

<b>Information on likely routes of exposure</b>	: Agilent-CGHblock	Routes of entry anticipated: Oral, Dermal, Inhalation.
	ULS-Cyanine3	Routes of entry anticipated: Oral, Dermal, Inhalation.
	ULS-Cyanine5	Routes of entry anticipated: Oral, Dermal, Inhalation.
	10X Labeling Solution	Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

<b>Inhalation</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	No known significant effects or critical hazards.
	ULS-Cyanine5	No known significant effects or critical hazards.
	10X Labeling Solution	No known significant effects or critical hazards.
<b>Ingestion</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	No known significant effects or critical hazards.
	ULS-Cyanine5	No known significant effects or critical hazards.
	10X Labeling Solution	No known significant effects or critical hazards.
<b>Skin contact</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	No known significant effects or critical hazards.
	ULS-Cyanine5	No known significant effects or critical hazards.
	10X Labeling Solution	No known significant effects or critical hazards.
<b>Eye contact</b>	: Agilent-CGHblock	No known significant effects or critical hazards.
	ULS-Cyanine3	Causes serious eye irritation.
	ULS-Cyanine5	Causes serious eye irritation.
	10X Labeling Solution	No known significant effects or critical hazards.

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

<b>Inhalation</b>	: Agilent-CGHblock	No specific data.
	ULS-Cyanine3	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	ULS-Cyanine5	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
<b>Ingestion</b>	10X Labeling Solution	No specific data.
	: Agilent-CGHblock	No specific data.
	ULS-Cyanine3	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
<b>Skin contact</b>	ULS-Cyanine5	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	10X Labeling Solution	No specific data.
	: Agilent-CGHblock	No specific data.
	ULS-Cyanine3	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	ULS-Cyanine5	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	10X Labeling Solution	No specific data.

## SECTION 11: Toxicological information

<b>Eye contact</b>	: Agilent-CGHblock ULS-Cyanine3	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	ULS-Cyanine5	Adverse symptoms may include the following: pain or irritation watering redness
	10X Labeling Solution	No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	No known significant effects or critical hazards. May damage the unborn child. May damage the unborn child. No known significant effects or critical hazards.
<b>Developmental effects</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: Agilent-CGHblock ULS-Cyanine3 ULS-Cyanine5 10X Labeling Solution	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>ULS-Cyanine3</b> 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

## SECTION 12: Ecological information

Sodium chloride	Acute EC50 2430000 µg/l Fresh water Acute EC50 28.85 mg/dm <sup>3</sup> Fresh water  Acute EC50 519.6 mg/l Fresh water  Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water  Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Algae - Navicula seminulum Algae - Pseudokirchneriella subcapitata Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 72 hours  48 hours  96 hours 48 hours 96 hours 3 weeks  96 hours 21 days 8 weeks
<b>ULS-Cyanine5</b> N,N-Dimethylformamide	Acute EC50 4500000 µg/l Fresh water Acute LC50 >100000 µg/l Marine water  Acute LC50 7100000 µg/l Fresh water  Chronic NOEC 1500 mg/l Fresh water Acute EC50 2430000 µg/l Fresh water Acute EC50 28.85 mg/dm <sup>3</sup> Fresh water  Acute EC50 519.6 mg/l Fresh water  Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water  Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Daphnia - Daphnia magna Crustaceans - Crangon crangon - Adult Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) Daphnia - Daphnia magna Algae - Navicula seminulum Algae - Pseudokirchneriella subcapitata Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	48 hours 48 hours  96 hours  21 days 96 hours 72 hours 48 hours  96 hours 48 hours 96 hours 3 weeks  96 hours 21 days 8 weeks
Sodium chloride	Acute EC50 2430000 µg/l Fresh water Acute EC50 28.85 mg/dm <sup>3</sup> Fresh water  Acute EC50 519.6 mg/l Fresh water  Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water  Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Algae - Navicula seminulum Algae - Pseudokirchneriella subcapitata Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 72 hours  48 hours  96 hours 48 hours 96 hours 3 weeks  96 hours 21 days 8 weeks
<b>10X Labeling Solution</b> Trometamol	Acute EC50 >980 mg/l Fresh water Acute NOEC 520 mg/l Fresh water	Daphnia Daphnia	48 hours 48 hours

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>10X Labeling Solution</b> 10X Labeling Solution	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>ULS-Cyanine3</b> N,N-Dimethylformamide	-1.01	0.3 to 1.2	low
<b>ULS-Cyanine5</b> N,N-Dimethylformamide	-1.01	0.3 to 1.2	low
<b>10X Labeling Solution</b> Trometamol	-1.56	-	low

## SECTION 12: Ecological information

### 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

### Regulatory 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

## SECTION 15: Regulatory information

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
<b>ULS-Cyanine3</b> N,N-dimethylformamide; DMF	Toxic to reproduction	Recommended	ED/169/2012	02/10/2014
<b>ULS-Cyanine5</b> N,N-dimethylformamide; DMF	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** :

Agilent-CGHblock	Not applicable.
ULS-Cyanine3	Restricted to professional users.
ULS-Cyanine5	Restricted to professional users.
10X Labeling Solution	Not applicable.

### Other EU regulations

**Europe inventory** : Not determined.

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
<b>ULS-Cyanine3</b> N,N-dimethylformamide	-	-	Repr. 1B, H360D (Unborn child)	-
<b>ULS-Cyanine5</b> N,N-dimethylformamide	-	-	Repr. 1B, H360D (Unborn child)	-

### Seveso Directive

This product is not controlled under the Seveso Directive.

### National regulations

#### 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 Inform Consent (PIC)

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.

## SECTION 15: Regulatory information

**Turkey** : Not determined.

**United States** : 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
<b>ULS-Cyanine3</b> Eye Irrit. 2, H319 Repr. 1B, H360D (Unborn child)	Calculation method Calculation method
<b>ULS-Cyanine5</b> Eye Irrit. 2, H319 Repr. 1B, H360D (Unborn child)	Calculation method Calculation method

**Full text of abbreviated H statements** : **Agilent-CGHblock**  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

**ULS-Cyanine3**  
 H312 Harmful in contact with skin.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H360D (Unborn child) May damage the unborn child.

**ULS-Cyanine5**  
 H312 Harmful in contact with skin.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H360D (Unborn child) May damage the unborn child.

**10X Labeling Solution**  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

**Full text of classifications [CLP/GHS]** : **Agilent-CGHblock**  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
 STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

**ULS-Cyanine3**  
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4  
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 Repr. 1B, H360D (Unborn child) TOXIC TO REPRODUCTION (Unborn child) - Category 1B

**ULS-Cyanine5**  
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4

**SECTION 16: Other information**

Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 1B, H360D (Unborn child)	TOXIC TO REPRODUCTION (Unborn child) - Category 1B

**10X Labeling Solution**

Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

**Date of issue/ Date of revision** : 03/02/2016

**Date of previous issue** : No previous validation.

**Version** : 1

[Notice to reader](#)

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.